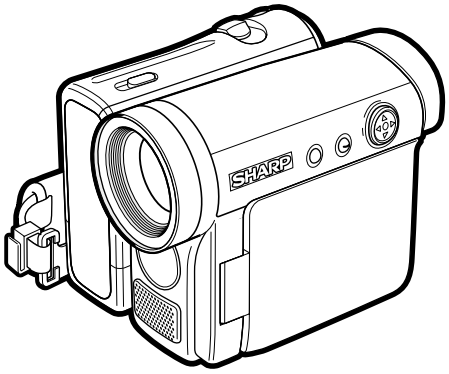
SHARP SERVICE MANUAL

S53B2VL-Z1U//

LIQUID CRYSTAL DISPLAY CAMCORDER NTSC



MODEL VL-Z1U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

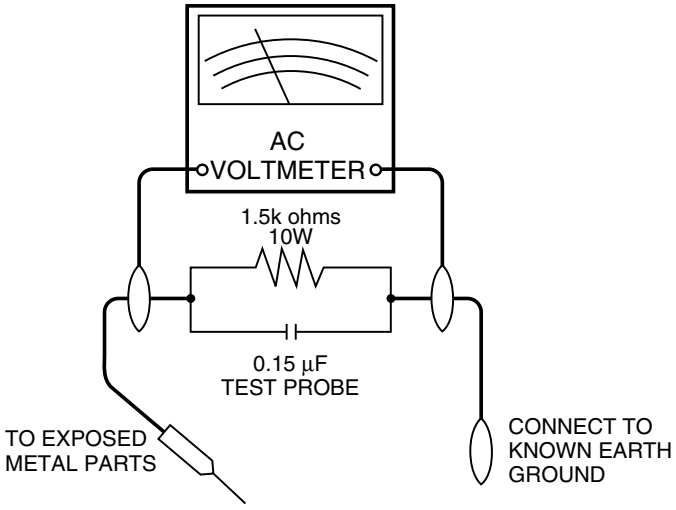
1. IMPORTANT SERVICE NOTES

BEFORE RETURNING THE VIDEO CAMERA RECORDER

Before returning the video camera recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the video camera recorder.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

· Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
· Using two clip leads, connect a l.5k ohm, 10 watt resistor paralleled by a 0.15μF capacitor in series with all exposed metal cabinet parts and a known ground, such as a water pipe or conduit.
· Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See Diagram).
· Move the resistor connection to all exposed metal parts having a return path to the chassis (antenna connections, metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug (a non polarized adaptor plug must be used but only for the purpose of completing these checks) on the set and repeat the AC voltage measurements for each exposed metallic part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the video camera recorder to the user.



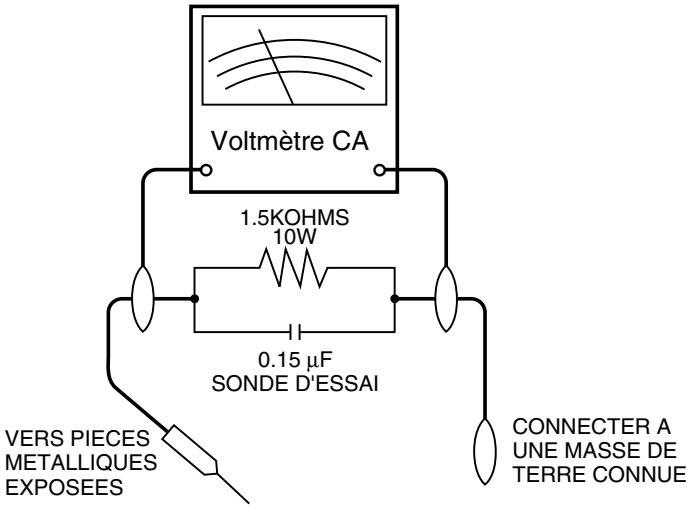
1. NOTES DE SERVICE IMPORTANTES

AVANT DE RENDRE LE MAGNETOSCOPE

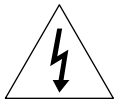
Avant de rendre le magnétoscope à l'utilisateur, effectuer les vérifications de sécurité suivantes.

1. Vérifier toutes les gaines de fil pour être sûr que les fils ne sont pas pincés ou que le matériel n'est pas coincé entre le châssis et les autres pièces métalliques dans le magnétoscope.
2. Vérifier tous les dispositifs de protection tels que les boutons de commande non métalliques, les matériaux d'isolement, le dos du coffret, les couvercles de compartiment et ajustement ou les boucliers, les réseaux de résistance / condensateur d'isolement, les isolateurs mécaniques, etc.
3. Pour être sûr qu'il n'y a aucun risque de choc électrique, vérifier le courant de fuite de la maniére suivante.

· Brancher le cordon d'alimentation secteur directement dans une prise de courant de 120 volts. (Ne pas utiliser de transformateur d'isolement pour cet essai).
· Utiliser deux fils à pinces et connecter une résistance de 10 watts 1,5 kohm en parallèle avec un condensateur de 0,15 μF en série avec des pièces du coffret métallique exposées et une masse de terre connue telle qu'un tuyau ou un conduit d'eau.
· Utiliser un voltmètre CA d'une sensibilité d'au moins 5000/V mesurer la chute de tension en travers de la rèsistance (voir diagramme).
· Déposer la connexion de la résistance à toutes les pièces métalliques exposées ayant un parcours de retour au châssis (connexions d'antenne, coffret métallique, têtes de vis, boutons et arbres de commande, etc.) et mesurer la chute de tension CA entre la résistance. Inverser la fiche CA (une fiche intermédiaire non polarisée doit être utilisée à seule fin de faire ces vérifications.) sur l'appareil et répéter les mesures de tension CA pour chaque piéce métallique exposée. Toute lecture de 0,45 V rms (ceci correspond à 0,3 mA rms CA) ou plus est excessive et signale un danger de choc qui doit être corrigé avant de rendre le magnétoscope à son utilisateur.

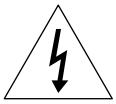


WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER·SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



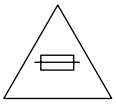
This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

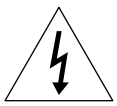
CAUTION

This symbol mark means following.
For continued protection against fire hazard, replace only with same type fuse.
(CP1; 0.75A 24V, CP2; 1.25A 24V, CP3; 1.25A 24V)

Camcorder only

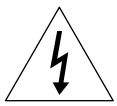


ATTENTION: POUR REDUIRE LES RESQUES D'INCENDIE OU DE CHOC ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.



ATTENTION
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

ATTENTION: AFIN DE REDUIRE LES RISQUES DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE, AUCUN ORGANE INTERNE NE PEUT ETRE REPARE PAR L'UTIUSATEUR, CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.



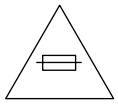
Ce symbole signale à l'utilisateur la présence d'une tension non isolée à l'intérieur de l'appareil qui peut être la cause de secousses électriques dangereuses.

Ce symbole avertit l'utilisateur que des instructions importantes relatives à l'utilisation et àl'entretien se trouvent dans le manuel accompagnant l'appareil.

ATTENTION

Ce symbole signifie que l'on devra utiliser un fusible de même type (CP1; 0,75A 24V, CP2; 1,25A 24V, CP3; 1,25A 24V) pour assurer la sécurité.

Camcorder seulement



⚠ CAUTION
BEFORE BATTERY DESTROY

☐ NICKEL-CADMIUM BATTERY

The following program is available in the United States. Please consult local environmental authorities concerning the availability of this or other programs in your area.

The RBRC™ Seal

SHARP participates in the RBRC™* Nickel-Cadmium Battery Recycling Program in the United States. The RBRC™ Seal on our battery pack contained in our product indicates that SHARP is voluntarily participating in an industry program to collect and recycle these batteries. The RBRC™ program provides you with a convenient alternative to placing spent Nickel-Cadmium battery packs into the trash or municipal waste stream, which is illegal in some areas. At the end of their useful life, the Nickel-Cadmium battery can be dropped off at the nearest collection center for recycling. For information on the nearest collection center, call 1-800-8-BATTERY or your local recycling center. If you are located outside the United States, contact your local authorities for information concerning proper disposal and/or recycling of this battery. SHARP's involvement in this program is part of our commitment to protecting our environment and conserving natural resources.

[Footnote] *RBRC™ is trademark of the Rechargeable Battery Recycling Corporation.

☐ NICKEL-METAL HYDRIDE BATTERY
☐ LITHIUM or LITHIUM-ION BATTERY
☐ SEALED LEAD BATTERY

Battery disposal
This product contains NICKEL-METAL hydride (LITHIUM-ION) battery.
This battery must disposed of properly.
Remove the battery from the product and contact your local environmental agencies for informationon recycling and disposal options.

■ PRECAUTIONS FOR USING LEAD-FREE SOLDER

1) Employing lead-free solder
"Main PWB", "CCD PWB", "Sub PWB", "LCD PWB", "Head amp PWB", "Lithium PWB", "Operation PWB", "VCR Operation PWB", "Zoom SW PWB", "Mecha Reversion detection PWB", of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

Sn-Ag-Cu Indicates lead-free solder of tin, silver and copper

2) Using lead-free solder
When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit. If you are not familiar with how to obtain lead-free solder or soldering bit, contact our service station or service ranch in your area.

3) Soldering
As the melting point of lead-free solder (Sn-Ag-Cu) is 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solderability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.
If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Lead-free wire solder for servicing

Part No.	★	Description	Price Code
ZHNDAi123250E	J	ϕ0.3mm 250g(1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm 500g(1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm 1kg(1roll)	BM

2. SPECIFICATIONS

Signal System:	NTSC standard
Recording System:	2 rotary heads, helical scanning system
Cassette:	Digital VCR Mini DV video cassette
Recording/Playback Time:	90 minutes (DVM60, LP mode)
Tape Speed:	SP mode: 18.812 mm/second LP mode: 12.555 mm/second
Pickup Device:	1/4" (6.4 mm, effective size: 4.5 mm) CCD image sensor (with approx. 680,000 pixels including optical black, effective pixels: approx. 340,000 pixels)
Lens:	10 × optical zoom lens (F1.8, f=3.8-38.0 mm)
Lens Filter Diameter:	30 mm
Monitor:	2.5" (6.4 cm) CGSilicon
Built-in Microphone:	Electret monaural microphone
Color Temperature Compensation:	Auto white balance with white balance lock
Minimum Illumination:	2 lux (9 lux measured by EIA standard)(with gain-up, F1.8)
Power Requirement:	DC 7.4 V
Power Consumption:	3.6 W (during camera recording in Camera mode using the viewfinder in Full Auto mode with the DIS function on) 4.2 W (during camera recording in Camera mode using the LCD monitor in Full Auto mode with the DIS function on and backlight in normal mode)
Operating Temperature:	32°F to 104°F (0°C to +40°C)
Operating Humidity:	30% to 80%
Storage Temperature:	–4°F to 140°F (–20°C to +60°C)
Dimensions (approx.):	3 1/4" (W) × 3 15/64" (H) × 4 " (D) [82.8 mm (W) × 82.2mm (H) × 101.5 mm (D)]
Weight (approx.):	1.05lbs (475 g) (without battery pack, lithium battery, video cassette and lens cap)

AC Adapter (UADP-0339TAZZ)

Power Requirement:	AC 110-240 V, 50/60 Hz
DC Output:	10 V
Dimensions (approx.):	1 31/32" (W) × 1 1/16" (H) × 2 19/32" (D) [50.0mm (W) × 27.0mm (H) × 65.5 mm (D)]
Weight (approx.):	0.22 lbs (100 g)

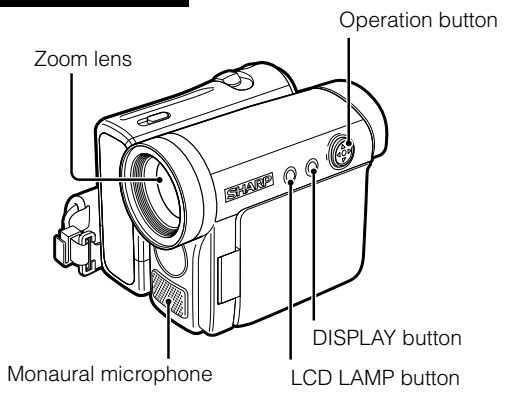
Specifications are subject to change without notice.

SERVICE INFORMATION (For the U.S.)

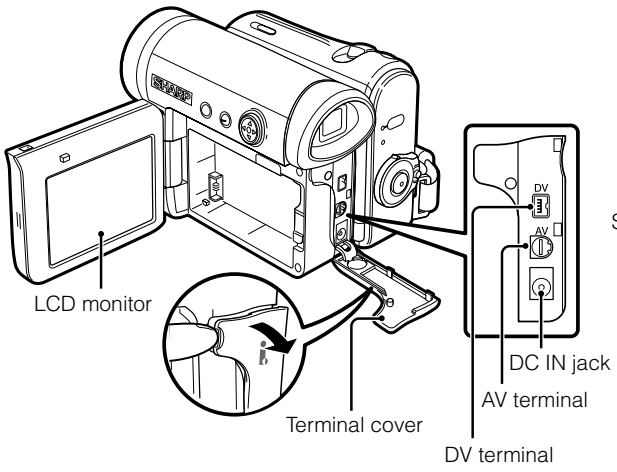
For the location of the nearest Sharp Authorized Service, or to obtain product literature, accessories, supplies or customer assistance, please call 1-800-BE SHARP (1-800-237-4277) or visit SHARP's website (http://www.sharpusa.com)

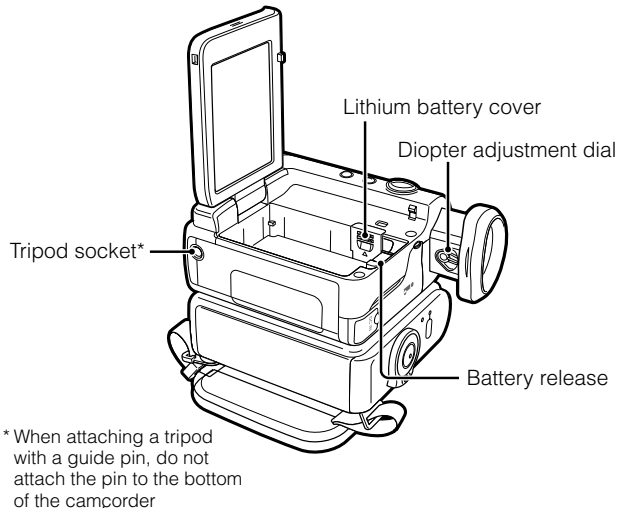
3. PART NAMES

Front view



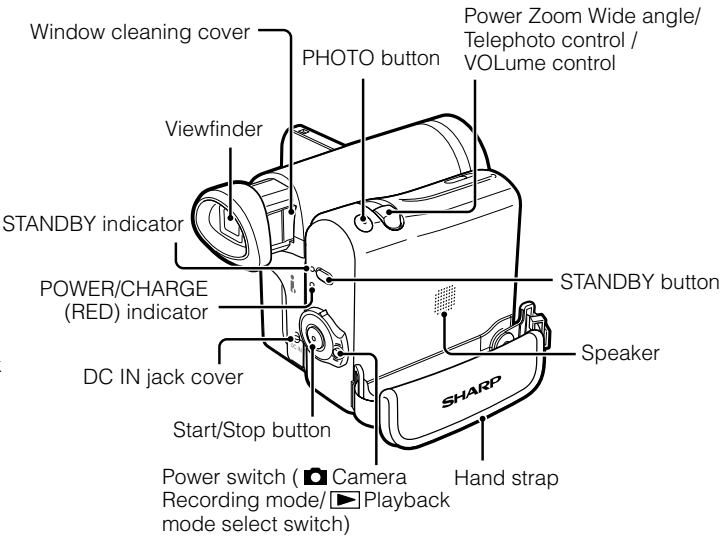
Left view

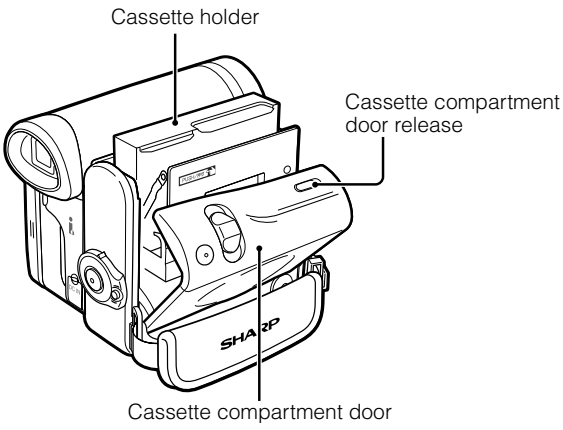




* When attaching a tripod with a guide pin, do not attach the pin to the bottom of the camcorder

Right view





4. DISASSEMBLY OF THE SET

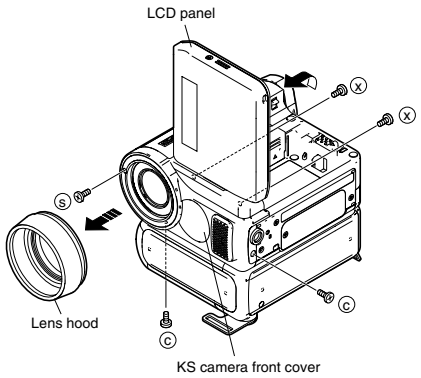
4-1. Procedure for disassembling the cabinet

Note:

Before removing the cabinet, turn OFF the power and make sure that the battery is not connected.

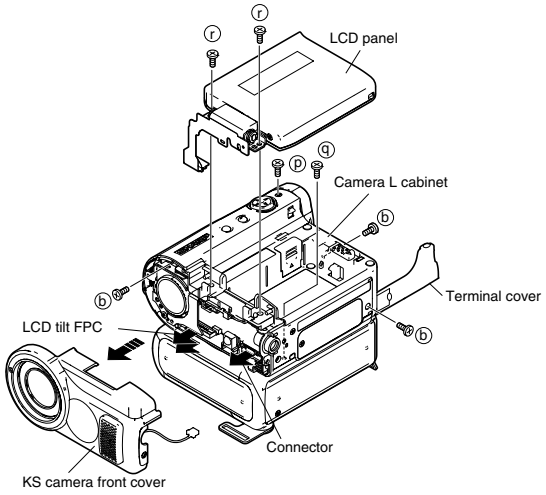
1.

· Remove the lens hood and remove the screw ((s) XiPSF14P06000).
· Open the LCD panel 90 degrees and remove the two screws ((x)LX-HZ0050TAFN).
· Remove the two screws ((c)XiPSN17P04000) and remove the KS camera front cover by pulling it frontward.



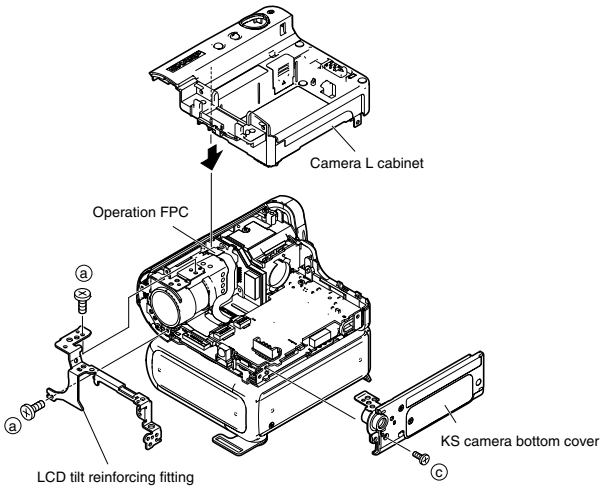
2.

· Disconnect the connector of the KS camera front cover.
· Disconnect the two LCD tilt FPCs of the liquid crystal panel.
· Remove the two screws ((r) XiPSN20P08000) and remove the LCD panel.
· Remove the screw ((p) LX-HZ0063TAFN) and screw ((q) XiPSN17P06000) that hold the camera L cabinet, open the terminal cover and remove the three screws ((b) XiPSN17P03000).

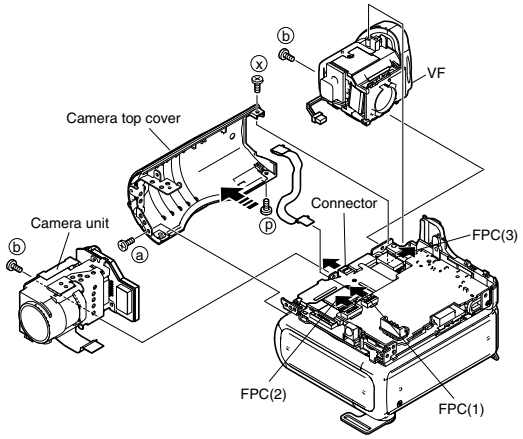


3.

· Disconnect the operation FPC and remove the camera L cabinet.
· Remove the screw ((c) XiPSN17P04000) and remove the KS camera bottom cover.
· Remove the two screws ((a) XiPSN17P02000) and remove the LCD tilt reinforcing fitting.

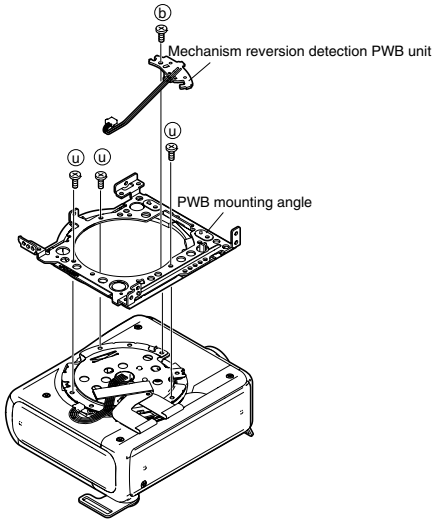


4.



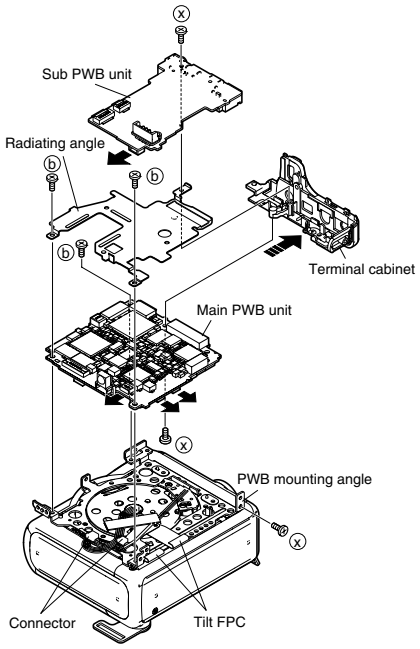
· Remove the screw ((x) LX-HZ0050TAFN), screw ((p) LX-HZ0063TAFN) and screw ((a) XiPSN17P02000), disconnect the FPC (1) and remove the camera top cover.
· Remove the screw ((b) XiPSN17P03000) from the camera unit, disconnect the FPC (2) and remove the camera unit.
· Remove the screw ((b) XiPSN17P03000), disconnect the connector and FPC (3) and remove the VF.

6.



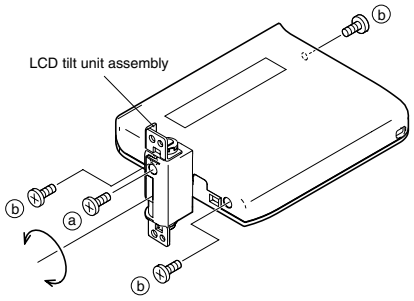
· Remove the screw ((b) XiPSN17P03000) and remove the Mechanism reversion detection PWB unit.
· Remove the three screws ((u) LX-BZ0221TAFC) and remove the PWB mounting angle.

5.



· Disconnect the two connectors of the sub PWB unit and main PWB unit.
· Remove the two screws ((b) XiPSN17P03000) from the radiating angle, remove the screw ((b) XiPSN17P03000) from the PWB unit and remove each unit.
· Disconnect the two FFCs of the main PWB unit.
· Remove the two screws ((x) LX-HZ0050TAFN), remove the screw ((x) LX-HZ0050TAFN) from the PWB mounting angle and remove the terminal cabinet.

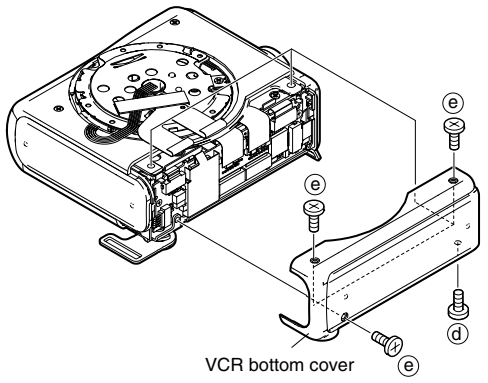
7.



· Turn the LCD tilt unit assembly 90 degrees.
· Remove the three screws ((b) XiPSN17P03000).
· Remove the screw ((a) XiPSN17P02000).

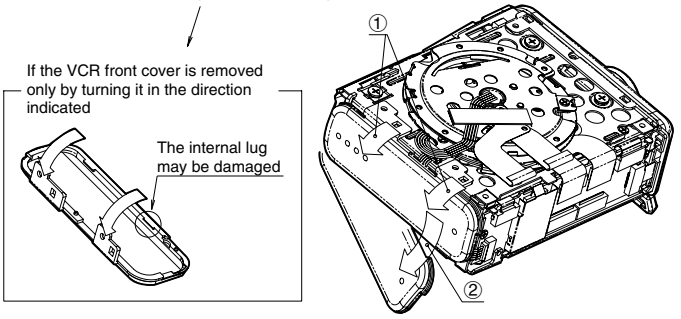
4-2. Procedure for disassembling the cabinet

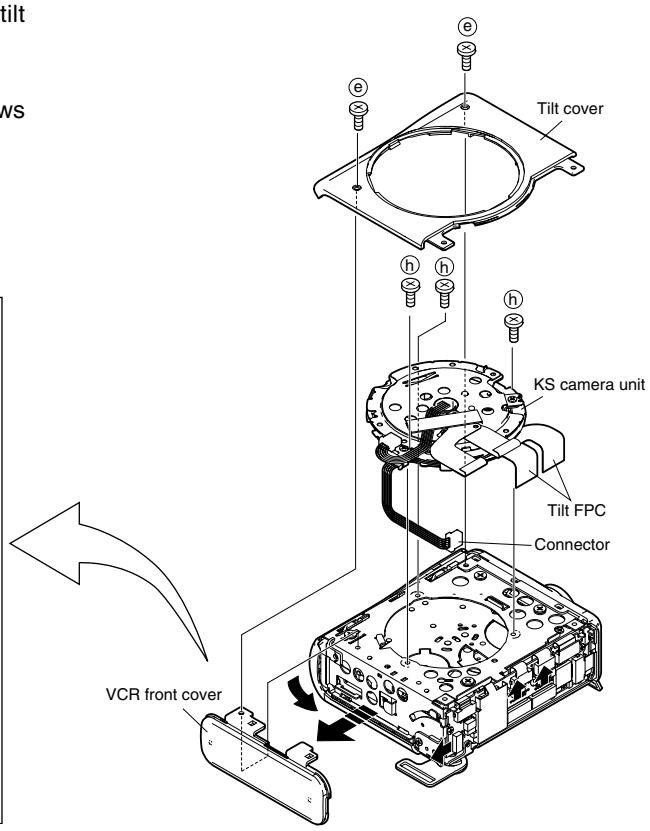
1.
· Remove the three screws ((e) XiPSF17P03000) , remove the screw ((d) XiPSF17P02000) and remove the VCR bottom cover.



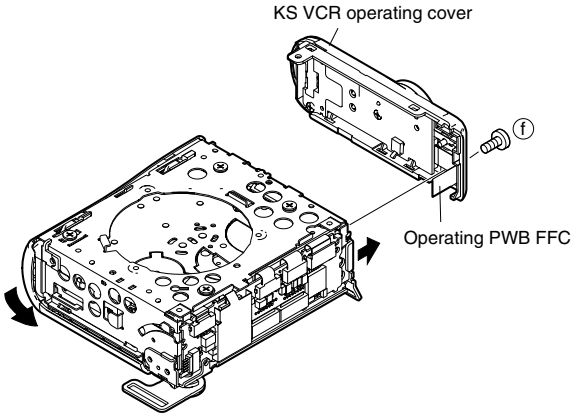
2.
· Remove the two screws ((e) XiPSF17P03000) and remove the tilt cover.
· Remove the VCR front cover with the cassette cover opened.
· Disconnect the connector and two tilt FPCs, remove the three screws ((h) LX-BZ0220TAFC) and remove the KS camera tilt.

How to remove the VCR front cover
1. Remove the two couplings and turn the VCR front cover about 20 degrees in the direction indicated by (1).
2. Turn the VCR front while sliding it in the direction indicated by (2) to disengage the internal lug.
* If the VCR front cover is removed by turning it forcedly in the direction indicated by (1), the internal lug may be damaged.



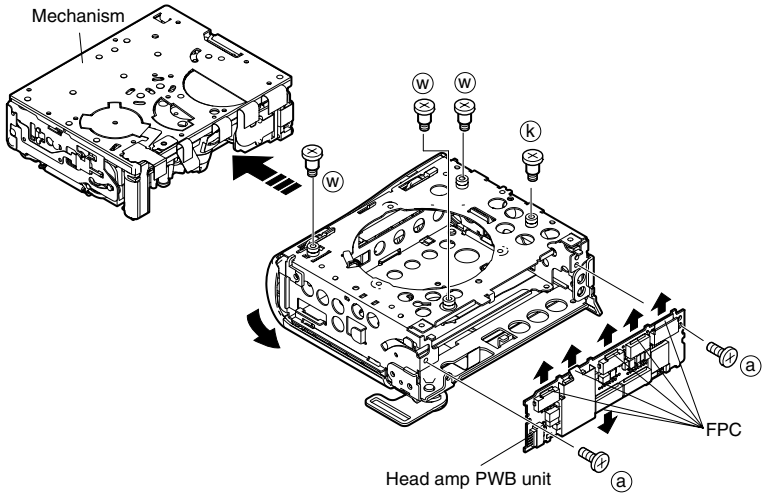


3.
· Remove the screw ((f) XiPSF17P04000) with the cassette lid opened, disconnect the operation PWB FFC and remove the KS VCR operating cover.



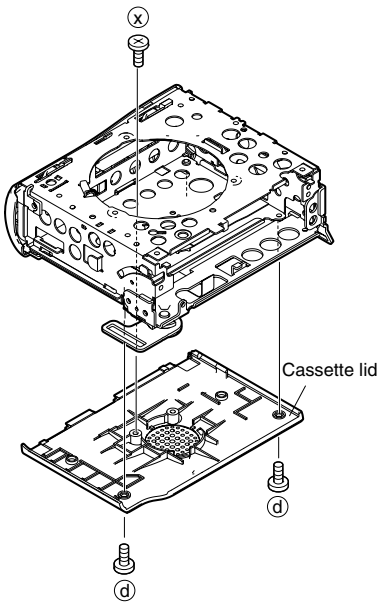
4.

· Disconnect the six FPCs of the head amp circuit board unit.
· Remove the two screws ((a) XiPSN17P02000) and remove the head amp PWB unit.
· Remove the three screws ((w) LX-BZA022WJFN) and remove the screw ((k) LX-BZA023WJFD).
· Remove the mechanism with the cassette lid opened.



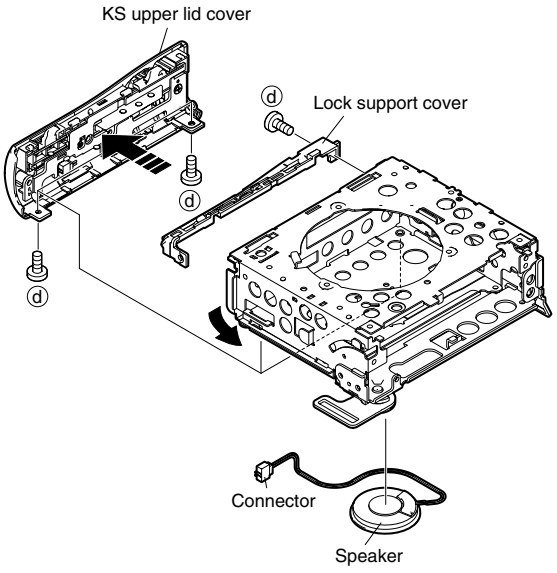
5.

· Remove the screw ((x) LX-HZ0050TAFN).
· Remove the two screws ((d) XiPSF17P02000) and remove the cassette lid.



6.

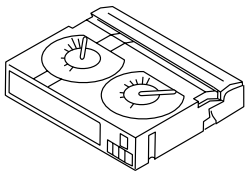
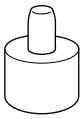
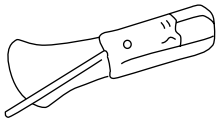
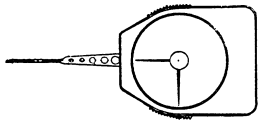
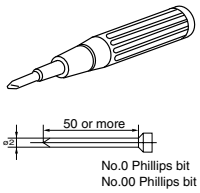
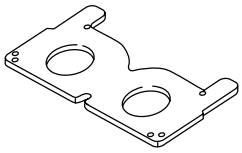
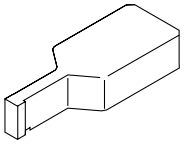
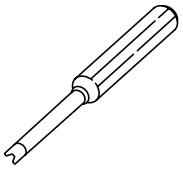
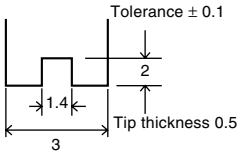
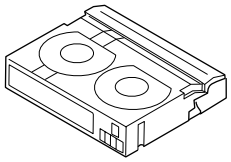
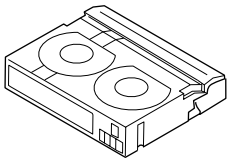
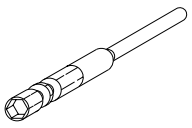
· Remove the two screws ((d) XiPSF17P02000).
· Disconnect the connector of the speaker while removing the KS upper lid cover with the cassette control lid opened.
· Remove the screw ((d) XiPSF17P02000) and remove the lock support cover.
· Remove the speaker.



5. MECHANISM ADJUSTING JIGS AND PARTS

5-1. Mechanism checking and adjusting jigs

<Note: Order of descriptions>
Sketch
1. Name
2. Part code
3. Code
* Model number and usage

 1. Cassette torque meter for PB 2. 9DASD-1015 3. DB * 1mN·m/1.5mN·m	 1. Torque gauge 2. JiGTG0045 3. CN * For measurement of VS-REW winding torque	 1. Torque gauge head 2. 9EQTGH-DH5000 3. BW * For torque gauge shown left	 1. Tension gauge 4N 2. JiGSG0400 3. BK * For measurement of pinch roller press force	 1. Dial tension gauge 2. 9DAPTG-10-10W 3. CA * PTG-10
 1. Torque driver 150mN·m 2. JiGTD1500RTDH 3. CB	 1. Master plane 2. 9EQMP-VLPD1 3. CL * For checking of height of reel table	 1. Height adjustment jig 2. 9DAHG-PD1 3. BZ * For height adjustment	 1. Driver for height adjustment 2. 9EQDRiVER-DH5 3. BC	* For adjustment of guide roller * Bit shape (see figure below) 
 1. Alignment tape – (I) 2. VR3-GAZXS 3. CF * Adjustment of running system (Linear signal)	 1. Alignment tape – (II) 2. VR3-GTZQS 3. CG * For adjustment of SW point(Color bar signal) * 90ADVC-TAPE available	 1. Bit for hexagon nut with opposite side distance of 3 mm 2. 95CM22001 3. BL * For installation of Tu guide nut	<Miscellaneous> (1) Vernier calipers (2) Precision screwdriver (Phillips head and slotted) (3) Long-nose pliers (with thin tips) (4) Tweezers	

5-2. Parts for periodic inspection and maintenance

<Note: Order of descriptions>
1. Name
2. Part code
3. Code
* Model number and usage

1. Oil Cosmo Hydro HV22 2. 9EQ-OiL-HV22 3. AE * Cosmo Oil Co., Ltd.	1. Cleaning paper 2. JiGDUSPER 3. AP * DUSPER Σ (SIGMA) (Ozu Co., LTD.)	1. Dry grease CFD-409Z * Sankei Chemical Co., LTD.	1. Cleaning liquid Industrial ethyl alcohol * Commercial item
		1. Grease Molykote YM-103 2. 99FGREASEYM103 * Dow Corning	1. Loctite adhesive (1401B) * Three Bond
			1. Ultrathin cotton swab * Commercial item

<How to make mechanism checking and adjusting jigs>

(1) Reel hub for back tension measurement (Fig.1)
   1) Have the reel hub of a commercially available cassette tape ready.(Disassemble the cassette tape and remove the tape from the reel hub.)
   2) Attach one end of a thread (having a length of about 20cm) to the reel hub using Scotch tape etc.
   3) Attach a weight of about 0.21N to the top face of the reel hub.

(2) Thread for pinch roller press force measurement
   1) Have a commercially available thread having a length of about 20cm ready.
   2) Tie both ends together to loop the thread.

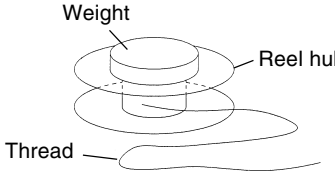


Fig. 1

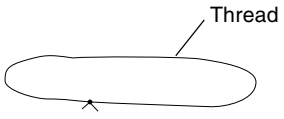


Fig. 2

6. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS

In order to maintain the quality of the mechanism section, perform the following maintenance and inspection. After repairing the mechanism section, perform the following maintenance regardless of the number of hours of use by the user.

6-1. Maintenance and inspection list

○ • • • Replace. □ • • • Clean. △ • • • Lubricate. ★ • • • Check.

	Inspection and maintenance location	Number of hours of use (h) 500	1,000	1,500	2,000	3,000	Symptoms observed at the time of maintenance	Notes and remarks
Running system	Tape running section (See 8-3.)	□	□	□	□	□	• Block noise • Clogging of head • Damage to tape	**Note:** If no envelope output is obtained in spite of the video head being cleaned, replace the drum component. (If the envelope output is normal, refer to "11. USEFUL TIPS".)
	Drum section, Video head (See 8-3.)	□	□	□	□	□		
		<Rollers> • Replace if abnormal rotation or swing (large) is found. <Others> • Cleans the portions that come in contact with the tape (the lower drum helical portion in particular). Use the specified cleaning liquid.						
Driving system	Pinch roller	□	□	□	□○	□	• Tape not running • Tape sagged • Block noise • Abnormal noise	• Replace if any abnormal condition is found.
	Capstan motor (Timing belt)	—	○	—	○	○		
	Swing arm S reel table, Tu reel table	—	★○	—	★○	★○		
	Center gear boss Relay pulley shaft	—	△	—	△	△	• Abnormal noise	• Apply oil. [Oil] Cosmo Hydro HV22 **Note:** Apply oil to the shaft and lightly wipe it off with a cloth.
	Loading motor Mode SW	—	★○	—	★○	★○	• Ejecting cannot be made. • Mode cannot be set.	• Replace if any abnormal condition (noise etc.) is found.
Performance check	Abnormal noise	★	★	★	★	★	• Tape not running • Tape sagged • Damage to tape • Abnomaly in reproduced picture	• If a part is out of spec, replace it.
	PB and VS/R winding torque	—	★	—	★	★		
	PB, VS/R and loading back tension S reel table unloaded torque	—	★	—	★	★		

[Oil] Cosmo Hydro HV22
[Grease] Molykote YM-103
Sankei Chemical CFD-409Z

[Loctite adhesive] Three Bond 1401B
[Cleaning liquid] Industrial ethyl alcohol

6-2. Cautions in handling the mechanism

(1) Cut washers removed at the time of part replacement etc. should be replaced with new ones without fail.
(2) Because no volume adjustment is available in this mechanism, cleaning or part replacement should be performed if the setting is not satisfied.
(3) About oil
  a) Be sure to use the specified oil. (If any oil other than the specified oil is used, various troubles will occur.)
  b) When lubricating the bearing, be sure to oil free from foreign particles such as dust. (If oil in which foreign particles such as dust are mixed is used, it will cause wear and seizure to the bearing.)
  c) The term "One drop of oil" here means the amount of oil on the point of a needle etc. shown in Fig.1.
(4) Repairing of circuits, final adjustment of running system, etc. should be performed with the cassette controller assembly installed in the mechanism.
(5) When operating the mechanism singly, apply voltage to the loading motor to drive it. The voltage between the terminals should be 3 to 4V DC. (Do not apply external voltage to the loading motor with the mechanism connected with the main circuit board. Doing so could cause a failure.) (Turning the gears forcedly by hand may cause them to get damaged.) When placing the mechanism singly, use an appropriate spacer so that the capstan motor is not rubbed.
(6) When installing the cassette controller, push the portion indicated by "A" in Fig.2. Do not push other portions.
(7) Take care not to deform the components of the mechanism.

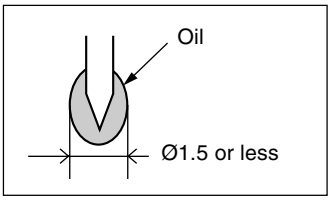


Fig. 1

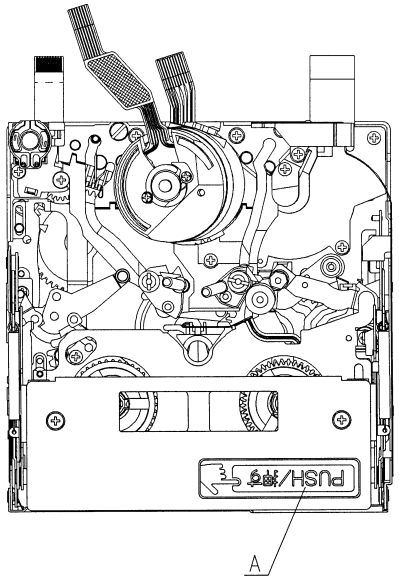


Fig. 2

7. ADJUSTING AND CHECKING OF MECHANISM

The items described here are relevant to the general on-site servicing (field service). This section does not cover adjustment and replacement for which sophisticated equipment, jigs and techniques are required.
In order to maintain the initial characteristics of the mechanism, it is necessary to perform maintenance and inspection and also it is essential not to damage the tape etc. In the case of an adjustment that requires a jig, be sure to use the specified jig.

<Caution>
(1) When adjusting and checking the mechanism, be sure to see that the power supply and the status are as indicated in Caution on the title.
(2) Do not apply external voltage to the loading motor with the mechanism connected with the main circuit board. (Doing so could cause a failure.)
(3) When running the tape, be sure to do so with the cassette controller assembly installed.

7-1. Checking of PB (REC) winding torque

AC adapter used, Cassette controller assembly installed

(1) Set the torque cassette with the cassette controller installed in the mechanism. In the SP record mode (or in the PB mode if signals have been SP-recorded on the tape), check that the winding torque is within spec.
<Spec for PB (REC) winding torque>(If there is a torque ripple, read the center value.)
0.7+0.2/-0.05N·m, Ripple: 0.1mN·m or less

7-2. Checking of VS-REW winding torque

AC adapter used, Cassette controller assembly not installed (Mechanism only)

(1) Remove the cassette controller, turn ON the down SW while referring to 9-3, operate in the test mode (T01) and select the VS-REW mode.
(2) Set the torque gauge in the S reel table, push the tip of the tension pole with your finger in the direction shown by Arrow A to release the tension band, and check that the winding torque is within spec. (Fig.1) (Do not apply the own weight of the torque gauge or rotate it during measurement.)
<Spec for VS-REW winding torque>
(If there is a torque ripple, read the center value.)
1.5 ± 0.15N·m, Ripple: 0.15mN·m or less
(3) After checking the winding torque, remove the torque gauge and turn OFF the down SW. The mechanism will automatically go into the standby mode.

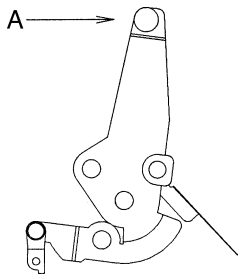


Fig.1 How to release the tension band when measuring the VS-REW winding torque

7-3. Checking of height of reel table

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

(1) Remove the cassette controller. (Refer to 9-2.)
(2) Apply 3 to 4V DC to the loading motor while referring to 9-1 and select the PB mode.
(3) Fit the holes of the master plane to the two guides (portions A and B) shown in the Fig.2, taking great care not to allow master plane to strike the running parts such as the drum and guide roller or the MIC contact.
(4) Using a pair of vernier calipers etc., measure the heights of the reel-supporting faces of the S reel table and Tu reel table from the top face of the master plane and check that the measured heights satisfy the set values. (Fig.3)
When measuring the height of the S reel table, push the tip of the tension pole with your finger in the direction shown by Arrow A to release the tension band. (Fig.1)
(5) If the measured height does not satisfy the set value, replace the reel table and make checking again.

<Note> After replacement, select the L start mode (see 9-1) and check that the reel table rotates smoothly.

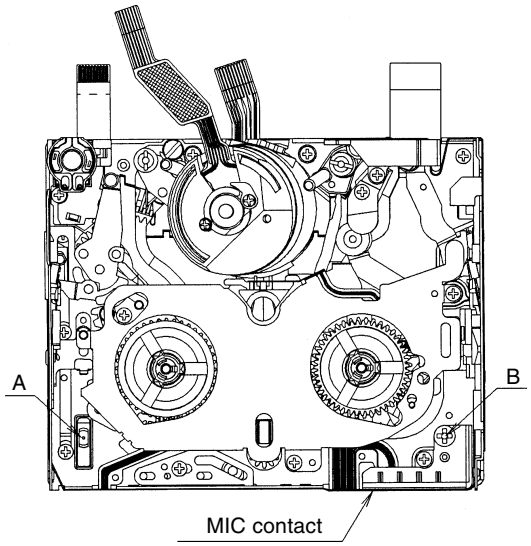


Fig.2 Checking of reel table

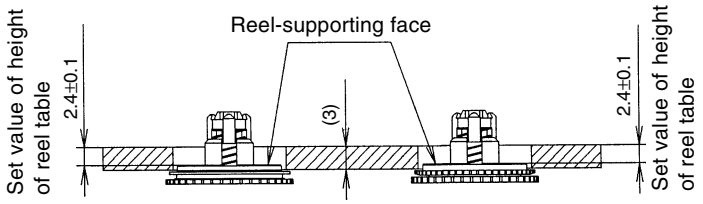


Fig.3

7-4. Checking and adjusting of tension pole position during REC (PB)

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

(1) Checking

Check that the tension pole is located in the prescribed position as shown in Fig.4 at the start of a 60-minute tape.

If the tension pole is not located in the prescribed position, take out the tape and make adjustment according to the procedure shown below.

(2) Adjusting (See Fig.4.)

1. Select the PB mode without setting a tape.
2. Slightly loosen the screw 1 (to such an extent that the T band adjustment base 2 can be moved.)
3. If the tension pole is dislocated inward from the prescribed position, shift the T band adjustment base 2 in the direction shown by Arrow (A). If it is dislocated outward from the prescribed position, shift the T band adjustment base 2 in the direction shown by Arrow (B). Then fix the T band adjustment base 2 with the screw 1.
   (For how much the T band adjustment base is to be shifted, refer to Fig.4.)
4. Check the tension pole position as described in "(1) Checking" above.
5. If out of position, make readjustment.

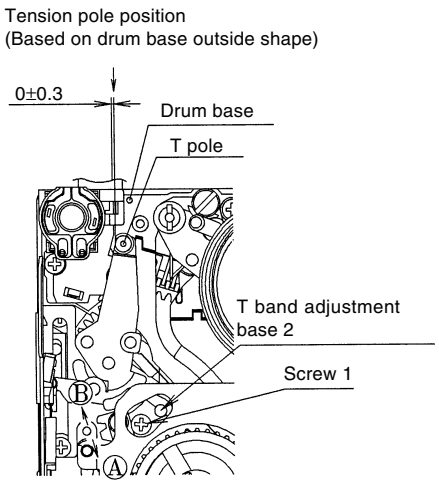


Fig.4 Adjusting of position (tape exists)

7-5. Checking and adjusting of REC (PB) back tension torque

AC adapter used, Cassette controller assembly installed

(1) Checking

Set the torque cassette (SD-1015). In the SP record mode (or in the PB mode if signals have been SP-recorded on the tape), check that the feed-side torque is within the following spec.

<Spec>(If there is a torque ripple, read the center value.)

0.55 ± 0.05N·m

(2) Adjusting (See Fig.5.)

If the measured back tension torque is out of spec, make adjustment according to the following procedure.

1. Slightly loosen the screw 3.
2. If the back tension is higher, shift the T-SPR adjustment ANG in the direction shown by Arrow (D). If it is lower, shift the T-SPR adjustment ANG in the direction shown by Arrow (C).
3. After adjusting the back tension torque, fix the T-SPR adjustment ANG with the screw 3. Apply loctite adhesive to screw 3.

<Reference>

Screw tightening torque: 0.04 N·m

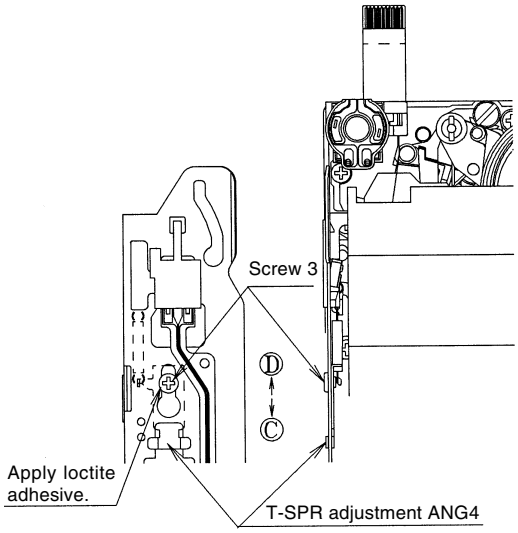


Fig.5 Checking (tape exists)

7-6. Checking of S reel table unloaded torque

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

(1) Remove the cassette controller assembly, apply 3 to 4V DC to the loading motor and select the L start mode. (See 9-1.)

(2) Move the swing arm to the Tu reel table side. At this time, take care not to damage the gears etc. (See Fig.6.)

(3) Set the reel hub for back tension measurement on the S reel table.

(4) Using the dial tension gauge, pull the thread of the reel hub in the direction shown by Arrow A and check that the tension is within spec.

<Spec>

(If the tension fluctuates, read the center value.)

10mN or less

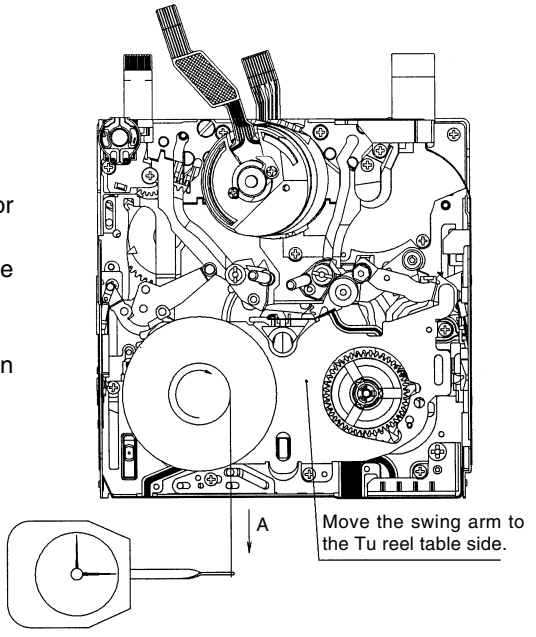


Fig.6 How to measure the S reel table unloaded torque

7-7. Checking of loading back tension

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

(1) Apply 3 to 4V DC to the loading motor and select the L start mode. (See 9-1.)
(2) Move the swing arm to the S reel table side. At this time, take care not to damage the gears etc. (See Fig.7.)
(3) Set the reel hub for back tension measurement on the Tu reel table.
(4) Using the dial tension gauge, pull the thread of the reel hub in the direction shown by Arrow A and check that the tension is within spec.

<Spec>

(If the tension fluctuates, read the center value.)
27.5 ± 7.5mN

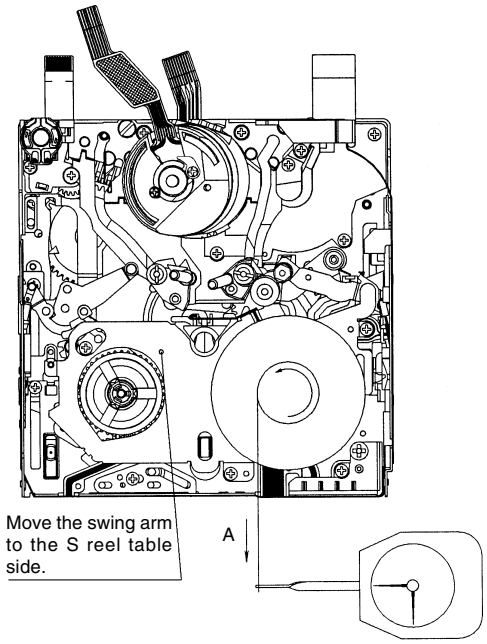


Fig.7 How to measure the loading back tension

7-8. Checking of VS-REW back tension

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

(1) Apply 3 to 4V DC to the loading motor and select the VS-REW mode. (See 9-1.)
(2) Move the swing arm to the S reel table side. At this time, take care not to damage the gears etc.
(3) Set the torque gauge in the Tu reel table.
(4) While turning the torque gauge counterclockwise (one turn in three seconds), check that the torque is within spec.

<Spec>

(If the tension fluctuates, read the center value.)
0.8+0.2/-0.05mN·m

7-9. Checking of pinch roller press force

3V DC, Cassette controller assembly not installed (Mechanism only)

(1) Hook the thread for pinch roller press force measurement over the pinch lever (position A in Fig.8).
(2) Put the mechanism into the PB mode to press the pinch roller against the capstan shaft.
(3) Hook the thread for pinch roller press force measurement over the tension gauge and pull the tension gauge in the direction shown by Arrow B in Fig.10 so that the pinch roller is slightly separated from the capstan shaft.
(4) Return the pinch roller gradually and read the value indicated when the pinch roller comes in parallel contact with the capstan shaft (see Fig.9). Check that the read value is within the following spec.

<Spec>

1.8+0.4/-0.4N

<Note> After measuring the press force of the pinch roller, promptly exit from the PB mode to separate the pinch roller from the capstan shaft. (If the pinch roller is left pressed against the capstan shaft for a long time, the pinch roller will be deformed.)

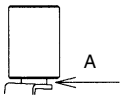


Fig.8

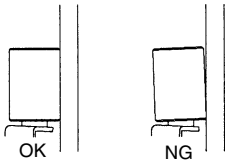


Fig.9

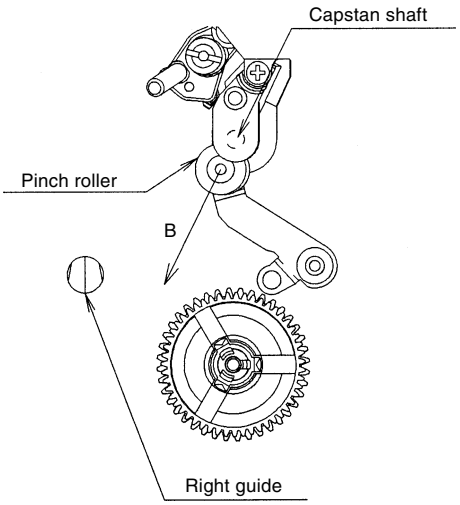
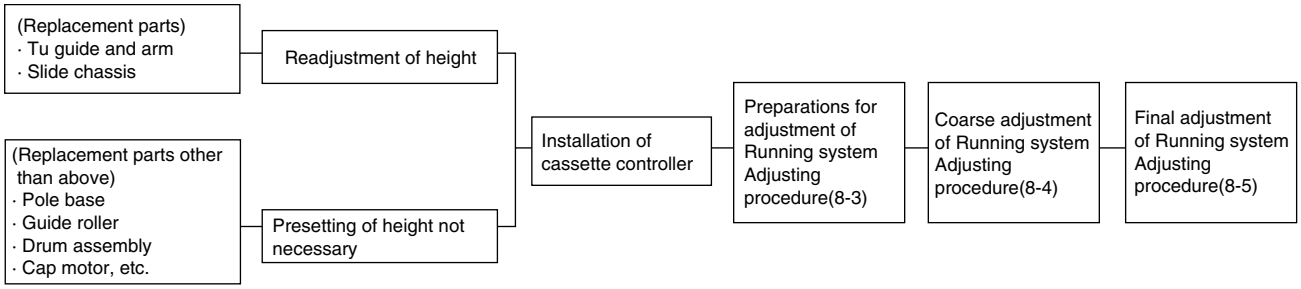


Fig.10

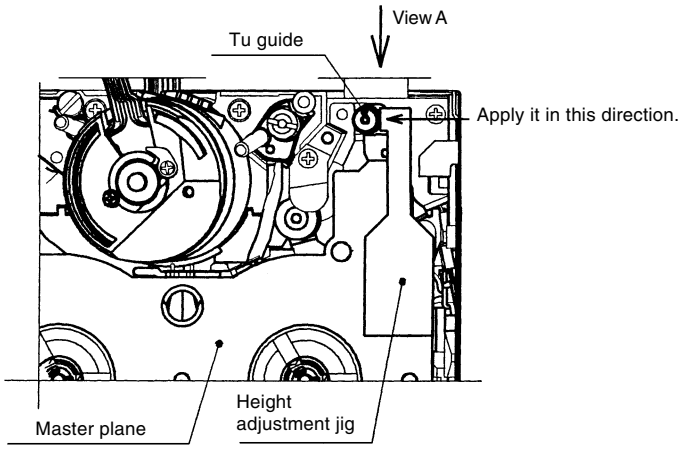
8. ADJUSTMENT OF RUNNING SYSTEM

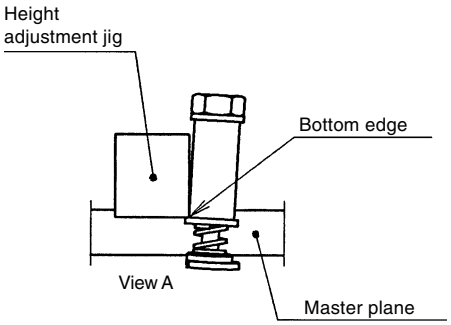
8-1. Outline of adjustment of running system


(Replacement parts)
· Tu guide and arm
· Slide chassis
Readjustment of height
(Replacement parts other than above)
· Pole base
· Guide roller
· Drum assembly
· Cap motor, etc.
Presetting of height not necessary
Installation of cassette controller
Preparations for adjustment of Running system Adjusting procedure(8-3)
Coarse adjustment of Running system Adjusting procedure(8-4)
Final adjustment of Running system Adjusting procedure(8-5)

8-2. Adjustment of height of running system

· After replacement of the Tu guide and slide chassis, adjust the height of the Tu guide using the height adjustment jig.
· If wrinkles are found in the tape, turn the Tu guide to remove them.
(For further details, refer to "Coarse adjustment of running system".)
· After adjusting the Tu guide height, apply screw loctite at the tip of the shaft.





Align the top face of the lower flange of the Tu guide with the bottom edge of the height adjustment jig.
After adjusting the height, turn the head clockwise 180 degrees.

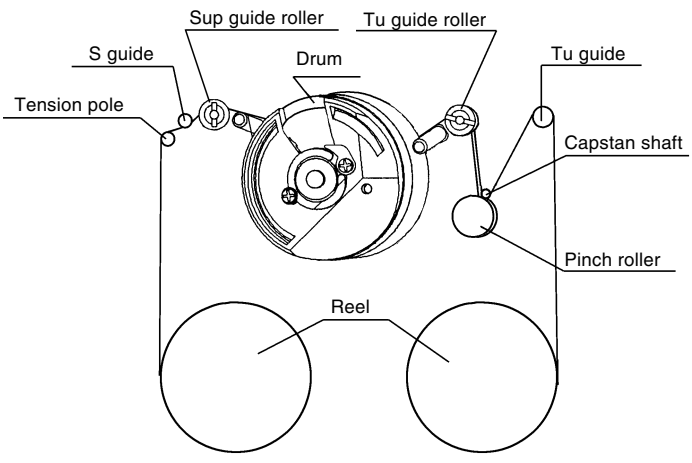
8-3. Preparations for adjustment of running system

Measuring instrument and Jig : Oscilloscope, Adjustment remote control, Height adjustment screwdriver, Alignment tapes (for adjustment of running system and adjustment of SW point), Master plane, Height adjustment jig

<Method and description>

(1) Clean the surfaces that come in contact with the tape. (Clean well the drum surface and the lower drum helical surface in particular.)
(2) Install the cassette controller.
(3) Connect the oscilloscope to each TP of the joint circuit board.
(4) Turn ON the power of the AC adapter.
(5) Select TEST mode T-05 with the adjustment remote control.
(6) Play back the alignment tape for running system adjustment and check that the tape is moving in the SP mode.
(7) While observing the PB envelope on the oscilloscope, adjust the running system so that the envelope becomes flat in states of [+1/4 shift] and [-1/4 shift].
(Each time the PB key is pressed, the shift amount changes as shown below.)

+1/4 shift ⇨ Normal ⇨ -1/4 shift ⇨ Normal



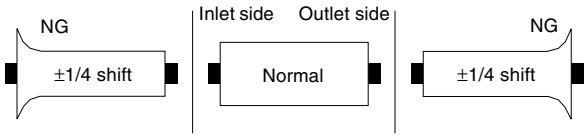
8-4. Coarse adjustment of running system

(Cassette controller installed)

1. Adjustment of height of Su and Tu guide rollers

<Method and description>

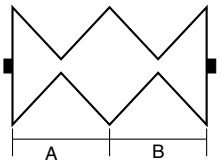
(1) Play back the alignment tape for running system adjustment and make adjustment so that the inlet and outlet sides of the envelope become flat.
(2) In states of [+1/4 shift] and [-1/4 shift], make adjustment in the same manner as described in (1) above.



2. Checking of V/SR envelope waveform

<Method and description>

(1) In the V/SR mode, check that the envelope waveform is shaped uniformly.
(2) If the envelope waveform is not shaped uniformly, fine-adjust the guide roller and Tu guide.

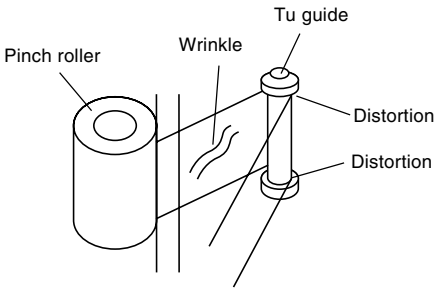


Make adjustment so that A≒B.

3. Checking for wrinkles in tape

<Method and description>

(1) In the PB mode and V/SR mode, check the tape for distortion between the Tu guide and the pinch roller.
⇨ If wrinkles are found, make adjustment within a range of ±180 degrees.
⇨ After making adjustment, apply loctite adhesive to the tip of the shaft.



4. Checking of envelope waveform rise time

<Method and description>

(1) Check the envelope waveform rise time in switching from the V/SR mode to the PB mode. ⇨ 5 seconds or less
(2) Check the envelope waveform rise time in switching from the STOP mode to the PB mode. ⇨ 5 seconds or less

8-5. Final adjustment of running system

(Cassette controller installed)

1. Adjustment of height of Sup and Tu guide rollers

<Method and description>

(1) If the ratio of MIN to MAN of the envelope waveform is less than 60%, adjust the height of the guide roller again. (See Fig.1.)
(2) Perform unloading and then loading again, select the PB mode and check that there are no significant changes in the envelope waveform.

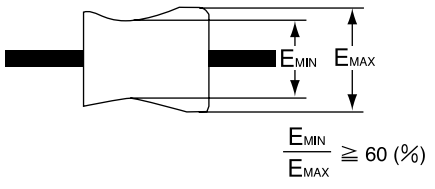


Fig.1

2. Adjustment of PB SWP

<Method and description>

(1) Play back the alignment tape for SW point adjustment.
(2) Using the adjustment remote control, make SWP automatic adjustment.
(3) Check that an OK is given as a result of self-judgment. In the case of a NG, adjust the GR height again.

* After replacement of the mechanism and drum, adjust the phase and equalizer using the adjustment remote control. (Refer to "**10. ADJUSTING THE ELECTRICAL CIRCUITS**".)

9. ASSEMBLING OF MECHANISM SECTION AND PART REPLACEMENT (DISASSEMBLING AND ASSEMBLING)

This section describes the method of assembling the mechanism section and the method of part replacement.
For how to remove the cabinet etc., refer to " **4. DISASSEMBLY OF THE SET**".

<Cautions>
1. Cut washers removed at the time of part replacement etc. should be replaced with new ones without fail.
2. When assembling the mechanism, take care to prevent screws, washers and foreign matter from getting into it. If such things get into the mechanism, it will cause the mechanism to malfunction.
3. Be sure to use the specified cleaning liquid, oil, grease and loctite adhesive shown below. Failure to do so will cause the mechanism to malfunction.

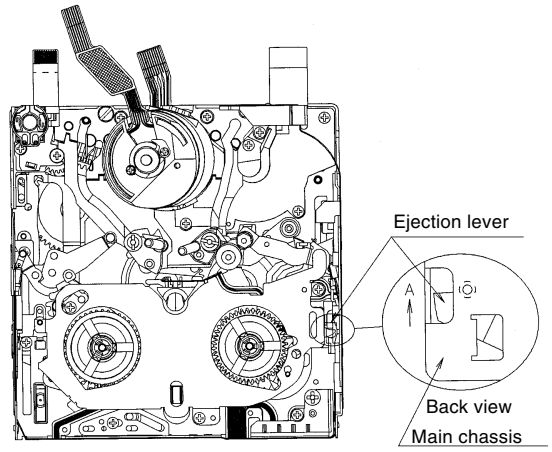
Oil: Cosmo Hydro HV22 (Cosmo Oil) Loctite adhesive: 1401B (Three Bond)
Grease: Molykote YM-103 (Dow Corning), Suncall CFD-409Z (Sankei Chemical Co., LTD.)
Cleaning liquid: Industrial ethyl alcohol

9-1. Mechanism mode

To operate the mechanism singly, apply 3 to 4V DC to the loading motor.
(Do not apply external voltage to the loading motor with the mechanism connected with the main circuit board. Doing so could cause a failure.)

(1) Ejection mode

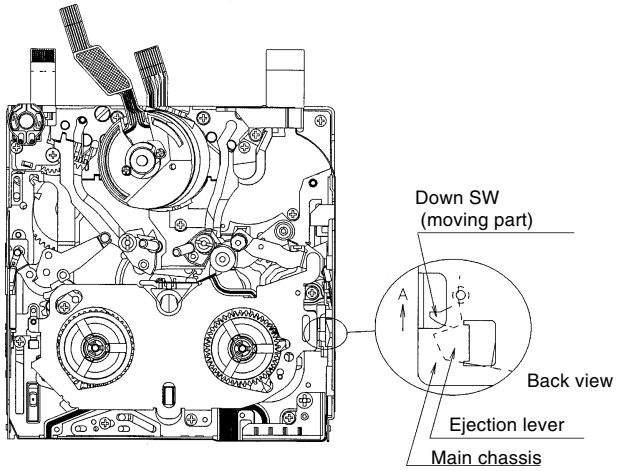
This mode is used to take out a cassette. In this mode, the ejection lever is shifted farthest in the direction shown by Arrow A. (In this mode, the cassette controller assembly cannot be locked.)



EJECTION MODE

(2) Standby mode

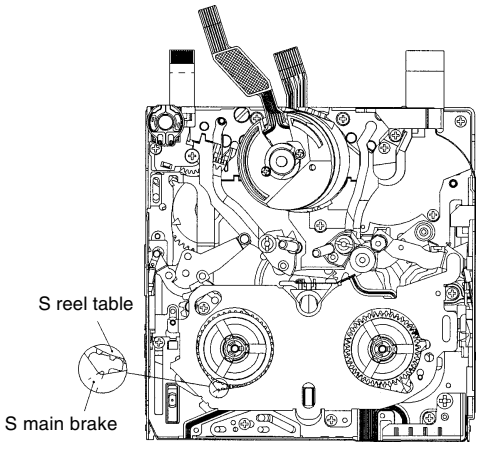
This mode is used to set a cassette. In this mode, the slide chassis is farthest away from the drum and the ejection lever is turned (the cassette controller assembly can be locked). (The tip of the ejection lever is hidden behind the main chassis and the moving part of the down SW is visible.)



STANDBY MODE

(3) L start mode

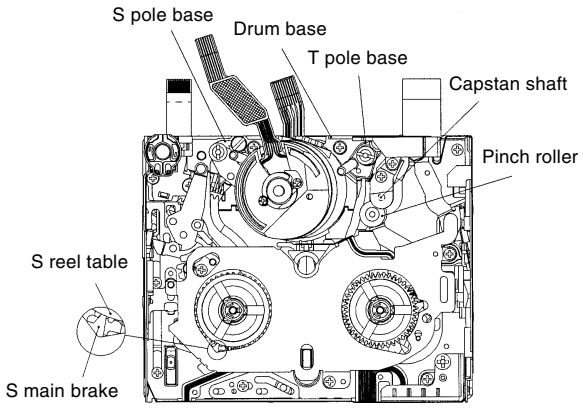
This mode is used for the Tu reel hub to take up the tape of a cassette whose leader tape is visible. (In this mode, the S main brake is located away from the S reel table.)



L START MODE

(4) Stop mode

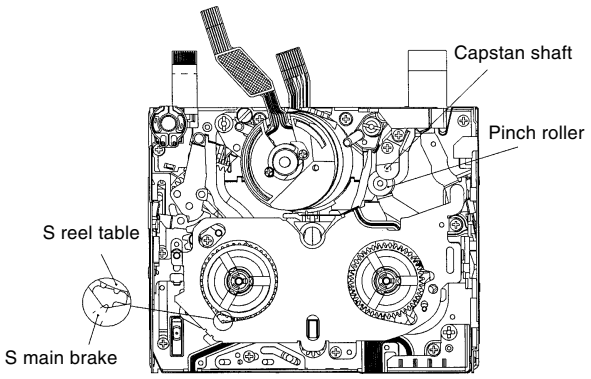
This mode is used for stopping (camera mode: RecLock). In this mode, the S and T pole bases are pressed against the drum base and the S main brake is engaged with the S reel table. However the pinch roller and capstan shaft are separated.



STOP MODE

(5) PB (Record, Fast forward, Fast rewind, VSF and VSR) mode

This mode is used for playback, recording, fast-forwarding, fast -rewinding, VSF and VSR. In this mode, the pinch roller is pressed against the capstan shaft and the S main brake is located away from the S reel table.



PB (RECORD, FAST FORWARD, FAST REWIND, VSF AND VSR) MODE

9-2. Cassette controller assembly

<Procedure for removing the cassette controller> (The cassette controller can be installed and removed without removing the cover.)

(1) Apply 3 to 4V DC to the loading motor to establish the standby mode. When removing the cover from the cassette controller, remove the tow screws (A). (See Fig.1.)

(2) Push the lock lever in the direction shown by the arrow and move up the cassette controller. (See Fig.2.)

(3) Remove the two screws (C) and remove the down guide (D) in the direction shown by the arrow (E). (See Fig.3 and Fig.4.)

(4) Shift the cassette controller in the direction shown by the arrow (F), remove the inner arm guide shaft L and the groove of the inner arm R toward the inside of the mechanism, and turn the cassette controller. (See Fig.5 and Fig.6.)

(5) Turn the cassette controller in the direction shown by the arrow (H) and shift it in the direction shown by the arrow (I) to remove it from the slide chassis. (See Fig.7.)

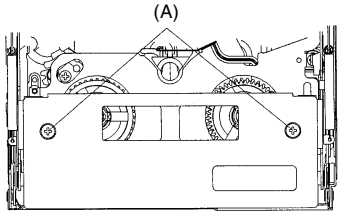


Fig.1

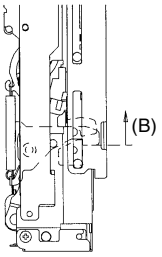


Fig.2

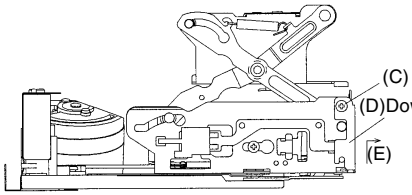


Fig.3

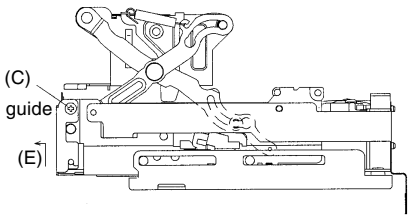


Fig.4

At this position, remove the groove of the inner arm R toward the inside of the mechanism.

At this position, remove the inner arm guide shaft L toward the inside of the mechanism.

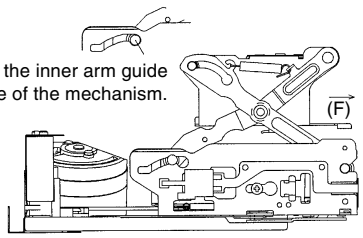


Fig.5

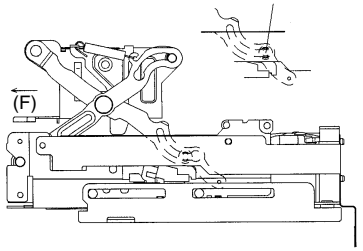


Fig.6

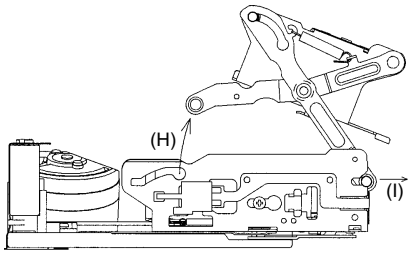


Fig.7

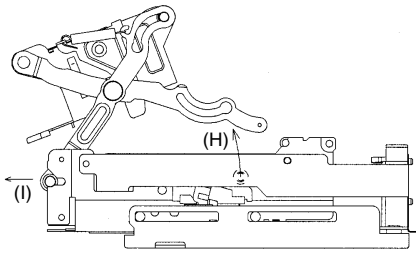


Fig.8

9-3. Method of operating on the circuit board with the cassette controller assembly removed

If this method is performed improperly, the tape may be damaged. Therefore do not use this method except in special cases such as measuring the VSR torque. Be sure to follow the cautions shown in this manual.

(1) Apply 3 to 4V DC to the loading motor to establish the standby mode.
(2 Insert a sheet of thick paper folded in two as shown in Fig.9 into the position shown in Fig.10 to turn OFF the down SW. (Pass the paper along the heavy line in the figure.)
Note) To go into the REC mode, press the pin of the recognition SW.
(3 Selecting the test mode (T-01) with the adjustment remote control without setting a tape will make it possible to operate the mechanism with the mode keys.
(4) For ejecting, remove the paper inserted in step (2) above.

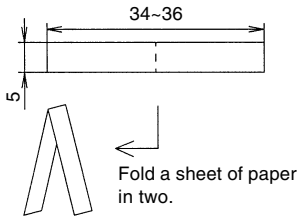


Fig.9

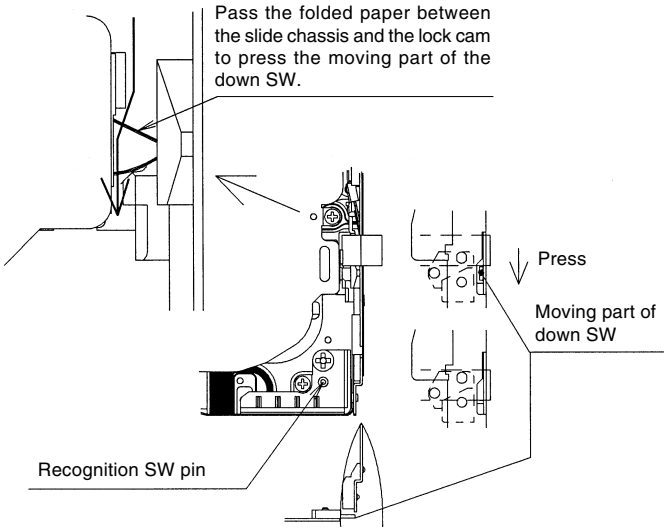

Pass the folded paper between the slide chassis and the lock cam to press the moving part of the down SW.
Press
Moving part of down SW
Recognition SW pin

Fig.10

9-4. Phase-adjust

Phase-adjust the following parts.

(1) Mode SW
(2) Main cam
(3) Sub cam (The main cam and sub cam should be also phase-adjusted for the chassis.)
(4) S loading arm
(5) Tu loading arm
(6) Loading drive gear (main cam, sub cam, S loading gear)

Note) Check the marker position carefully before disassembling.

Note) When installing the loading drive gear, check that the main cam, sub cam, S loading gear are all phase-adjusted.

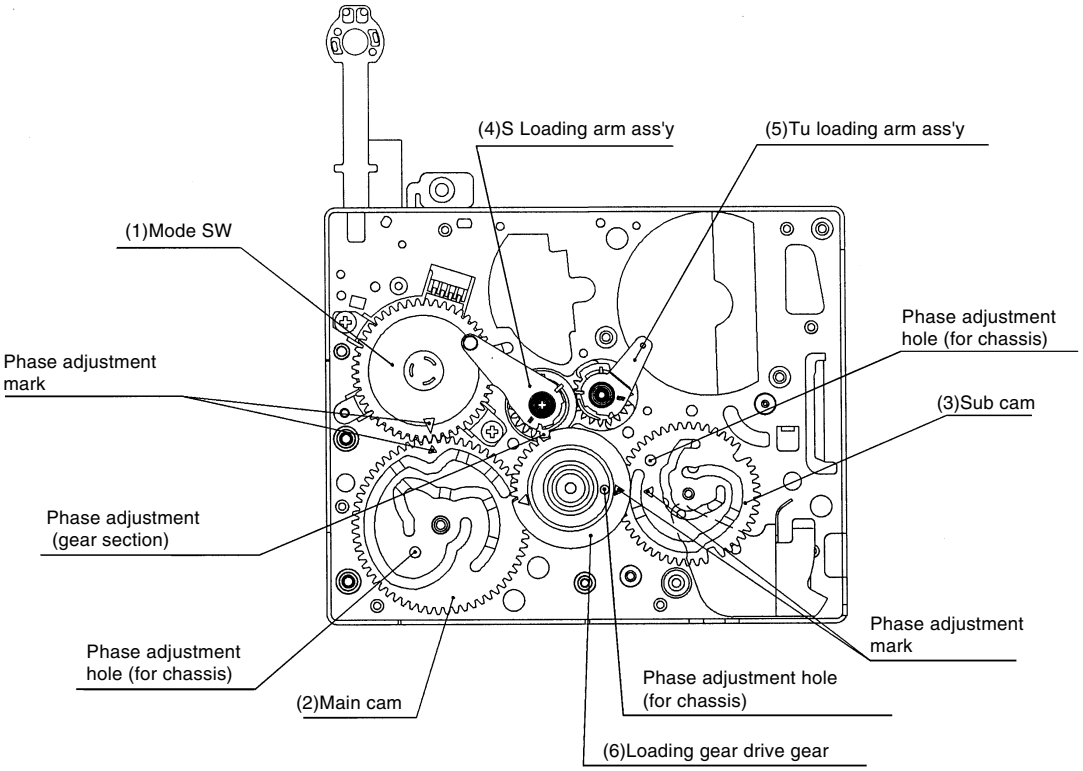


Fig.1

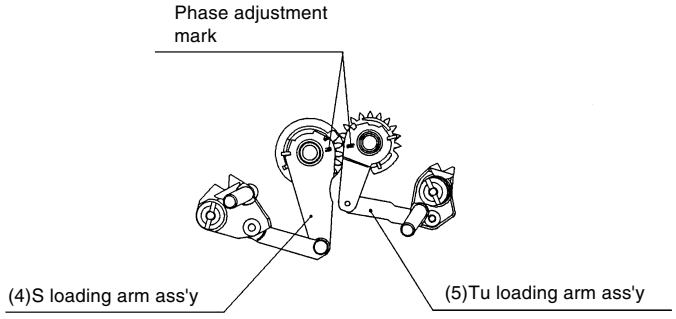


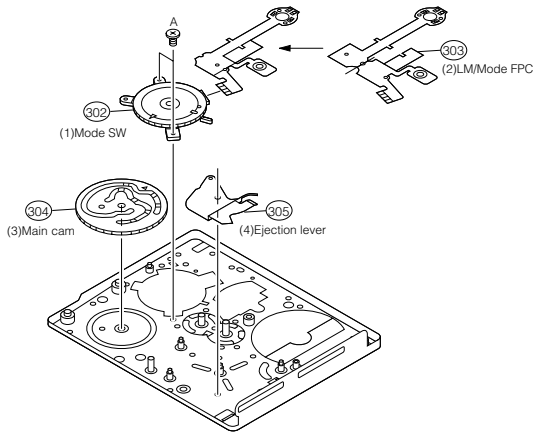
Fig.2

9-5. Assembling method

9-5-1. Method of assembling the main chassis assembly

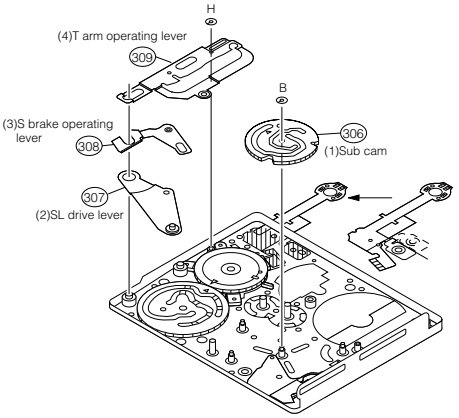
Note) For reference, numbers are prefixed to parts names to show the sequence of assembly.
(For the greasing/oiling and cleaning locations, refer to the diagram of greasing/oiling locations.)

1.



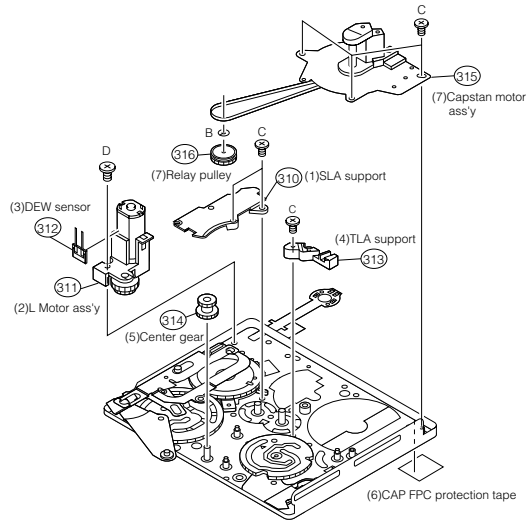
	Type	Tightening torque	Q'ty
A	M1.4xL1.6(Special screw)	0.4mN·m	2

2.



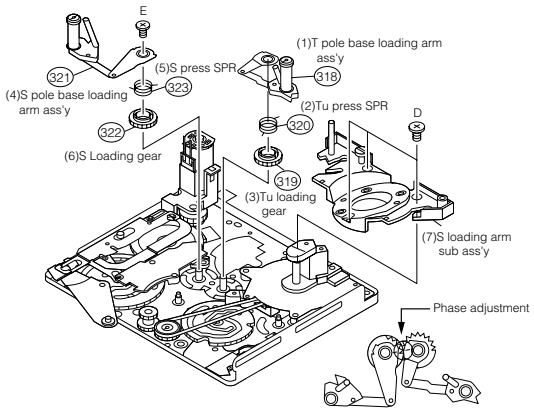
	Type	Tightening torque	Q'ty
B	CWø1.2-ø3.0t-0.25	————	1
H	CWø0.7-ø1.8-t0.2	————	1

3.



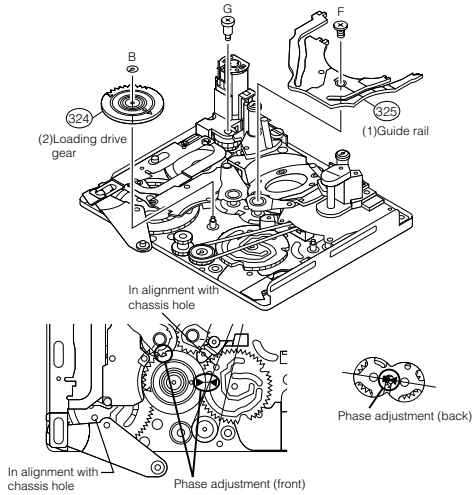
	Type	Tightening torque	Q'ty
C	S Tight M1.4xL2.0	0.4mN·m	5
D	S Tight M1.4xL3.0	0.4mN·m	1
B	CWø1.2-ø3.0t-0.25	————	1

4.



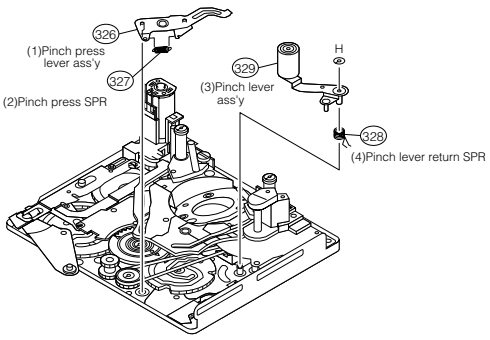
	Type	Tightening torque	Q'ty
D	S Tight M1.4xL3.0	0.4mN·m	3
E	M1.4xL2.0(t0.2 special screw)	0.4mN·m	1

5.



	Type	Tightening torque	Q'ty
F	M1.4xL1.5(t0.2 special screw)	0.4mN·m	1
G	M1.2xL4.6 (t0.2 particularly special screw)	0.4mN·m	1
B	CWø1.2-ø3.0t-0.25	————	1

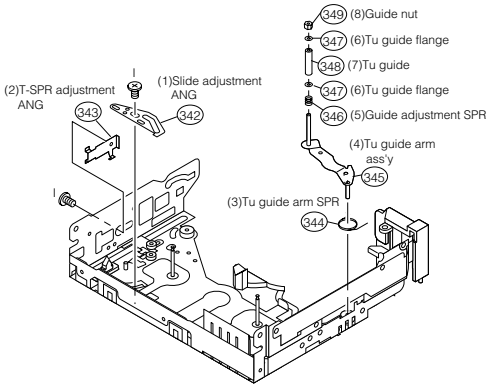
6.



	Type	Tightening torque	Q'ty
H	CWø0.7-ø1.8-t0.2	————	1

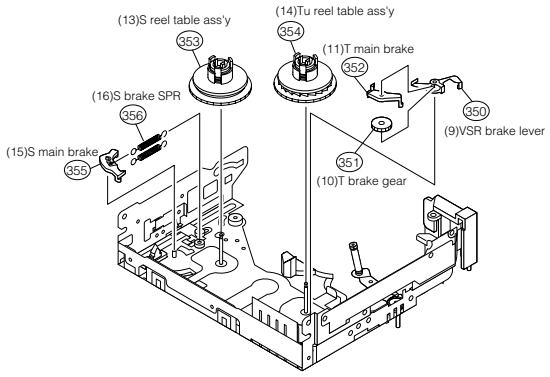
9-5-2. Method of assembling the slide chassis assembly

1.

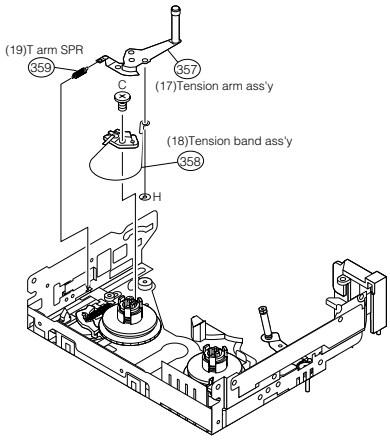


	Type	Tightening torque	Q'ty
I	Precision type 2·M1.4xL1.0	0.4mN·m	2

2.



3.



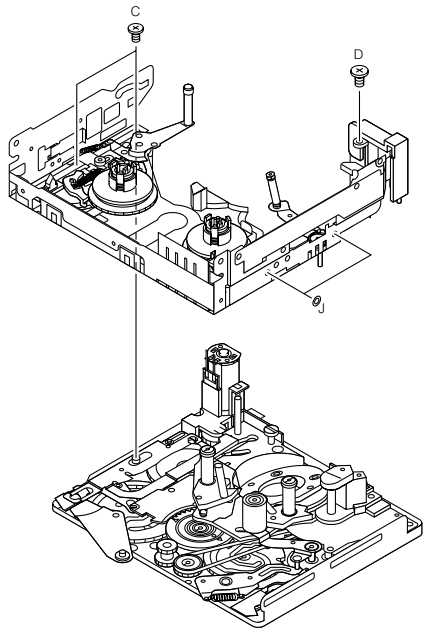
	Type	Tightening torque	Q'ty
C	S Tight M1.4xL2.0	0.4mN·m (Tightening fully)	1
		0.05mN·m (Tightening temporarily)	
H	CWø0.7-ø1.8-t0.2		1

9-5-3. Method of combining the main chassis assembly and the slide chassis assembly

(1) Position the assemblies as shown in the figure below (the pole base is slightly protruded).

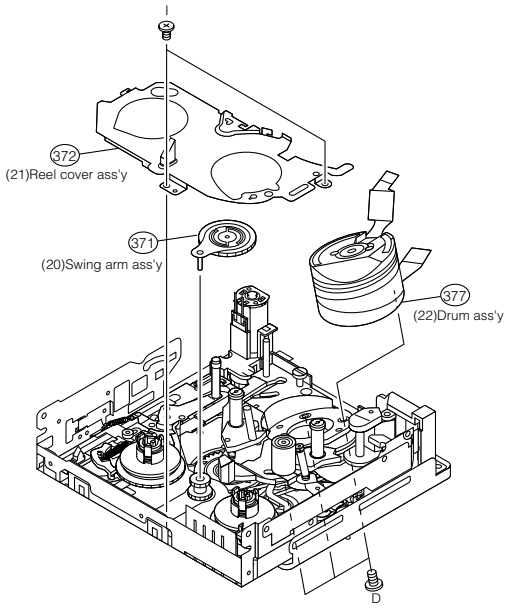
(2) Insert the operation pins (tension arm, Tu guide arm) of the slide chassis assembly into the locations of the main chassis assembly shown in the figure below, fit the SL drive lever pin of the main chassis assembly into the groove of the slide chassis (the groove of the slide adjustment ANG), and then fix with the two screws.

1.



	Type	Tightening torque	Q'ty
C	S Tight M1.4xL2.0	0.4mN·m	2
D	S Tight M1.4xL3.0	0.4mN·m	1
J	Wø2.1-ø4-t0.25	————	2

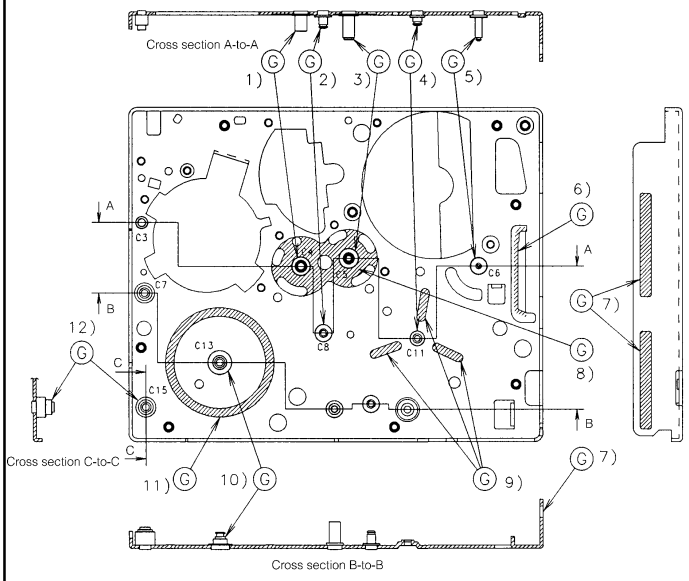
2.



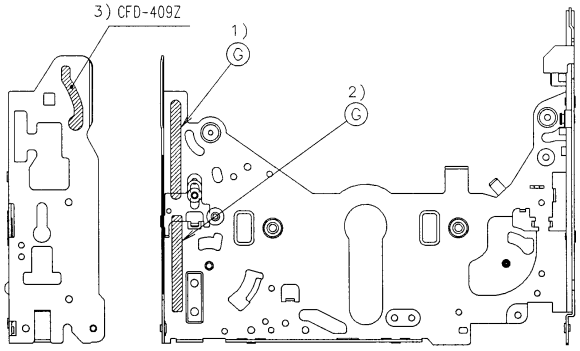
	Type	Tightening torque	Q'ty
D	S Tight M1.4xL3.0	0.4mN·m	1
I	Precision type 2·M1.4xL1.0	0.4mN·m	2

9-5-4. Diagram of greasing/oiling locations

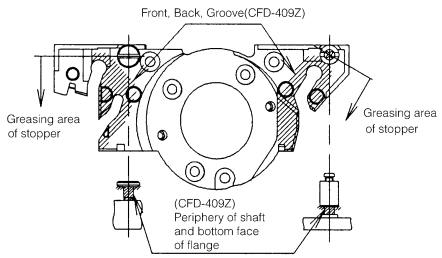
Note: About ▨ all over the figure.
Ⓖ : Molykote YM-103
CFD-409Z : Suncall CFD-409Z



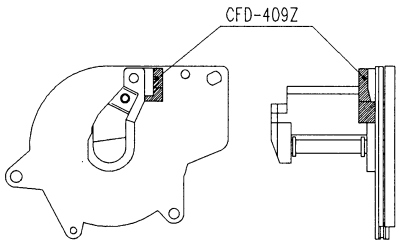
101 Main chassis Assy



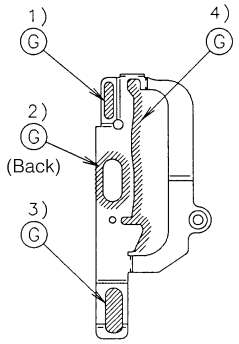
151 Slide chassis Assy


Front, Back, Groove(CFD-409Z)
Greasing area of stopper
Greasing area of stopper
(CFD-409Z) Periphery of shaft and bottom face of flange

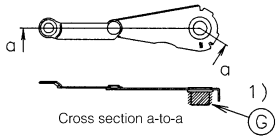
703 Drum base Assy
(Suncall CFD-409Z for all shaded areas)



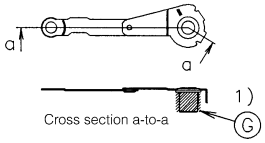
CAP motor bearing holder



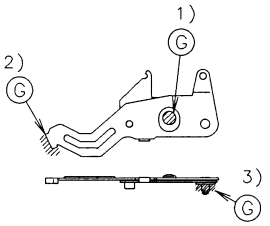
112 T arm operating lever



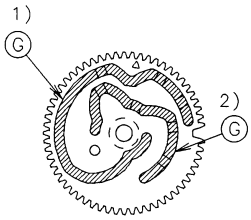
120 S loading arm Assy



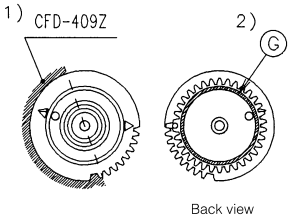
121 T loading arm Assy



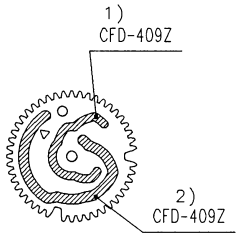
114 Pinch roller press lever Assy



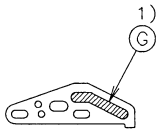
116 Main cam



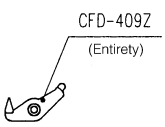
204 Loading drive gear
(Can be immersed in Suncall)



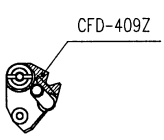
117 Sub cam
(Can be immersed in Suncall)



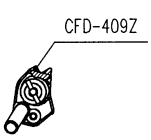
166 Slide adjustment ANG



258 T Main Brake
(Immersed in Suncall)

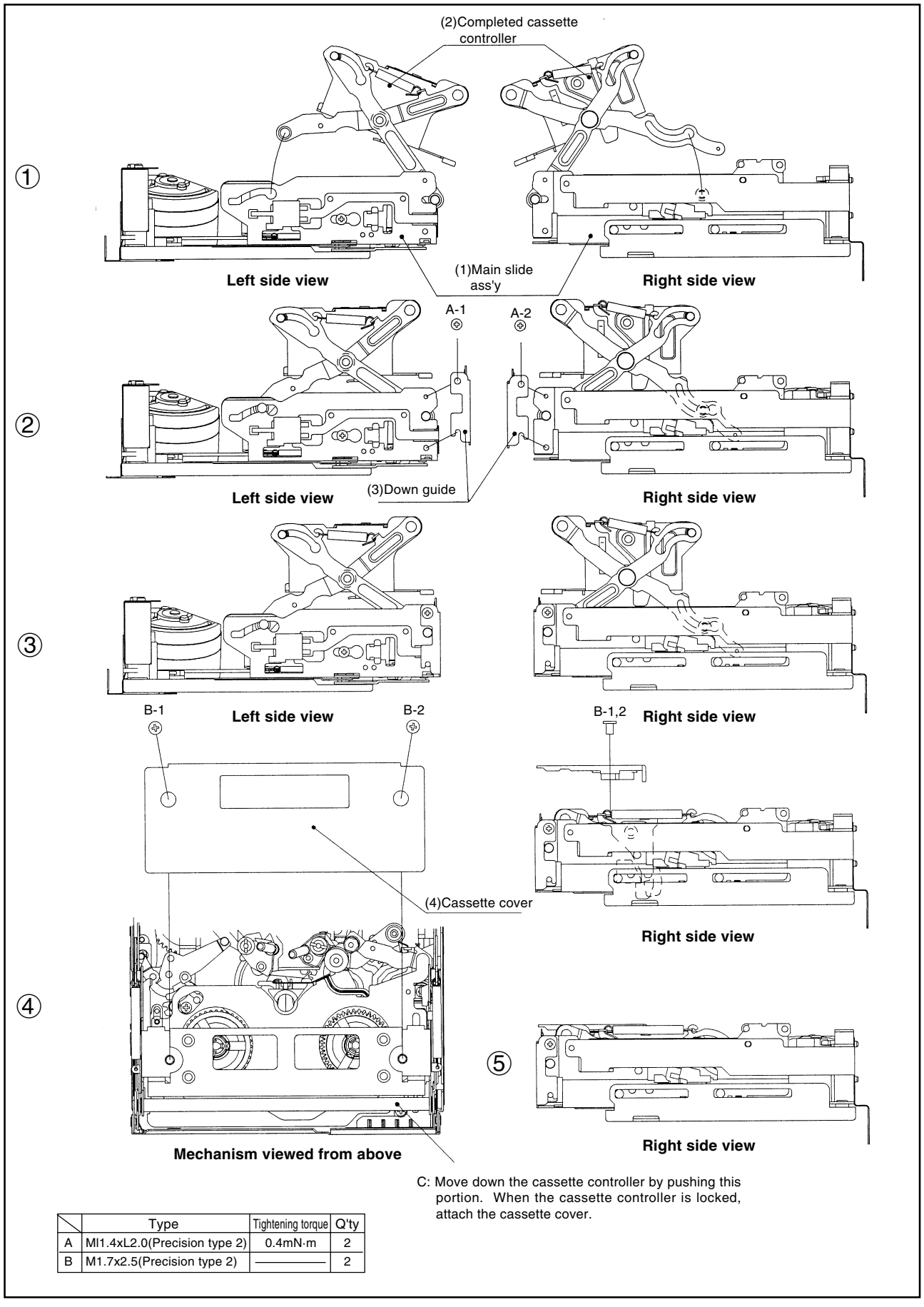


321 S Pole base



318 T Pole base

9-6. Method of installing the cassette controller



C: Move down the cassette controller by pushing this portion. When the cassette controller is locked, attach the cassette cover.

	Type	Tightening torque	Q'ty
A	MI1.4xL2.0(Precision type 2)	0.4mN·m	2
B	M1.7x2.5(Precision type 2)	————	2

9-7. Method of taking out the cassette with the mechanism operating singly

(1) Apply 3 to 4V DC to the loading motor for slight unloading.
(2) If the tape is slack, turn the rotor (mechanism backside) of the capstan motor by hand to take up the slack in the tape.
(3) Repeat steps (1) and (2) above. When the pole base is completely unloaded, check that the tape is not slack.
(4) Then apply 3 to 4V DC to the loading motor again. The cassette controller will move up.
(5) Take out the cassette.
Note) When applying 3 to 4V DC to the loading motor for unloading, do so as shown in Fig.1.

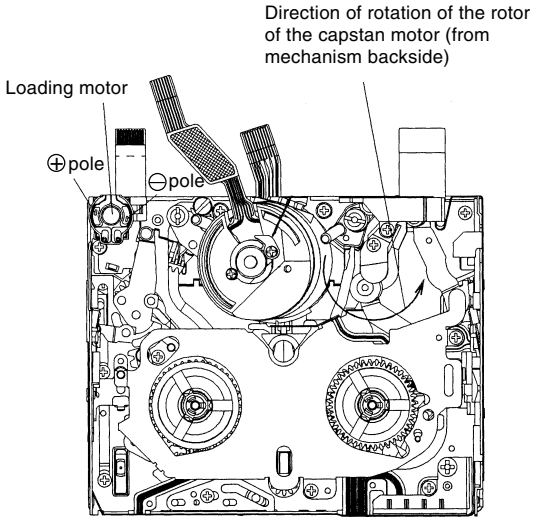


Fig.1

10. METHOD OF ADJUSTING THE ELECTRIC CIRCUIT

-Before making adjustment-

· It seems that, in most cases, this adjusting method is used when it becomes necessary to adjust the electric circuit as a result of replacement of worn mechanism parts or the video head. When adjusting the electric circuit, check that the mechanism operates properly (the mechanism is adjusted completely). If a failure occurs in the electric circuit, be sure to locate the fault using a measuring instrument and then perform repairing, replacement and adjustment, as described in this adjusting method.
Avoid performing undue adjustments etc. without using proper measuring instruments.

· The electric circuit components in the circuit board unit of this product are densely-packed into packages. Most of them are surface-mounted for downsizing.
When replacing components in servicing the product, perform replacement work swiftly with a soldering iron.
In general, surface-mounted components are inferior in heat resistance to large-sized discrete components used in TV sets, stationary decks, etc. Heating the electrode of a surface-mounted component with a soldering iron for a long time needlessly will therefore lead to a failure. Take great care not to do so.
Take special care in this respect when replacing chip multilayer capacitors in particular.
We recommend you to use a ceramic soldering iron (Tip temperature: 250°C, Contact time: 5 seconds or less).

10-1. Adjustment of liquid crystal video section

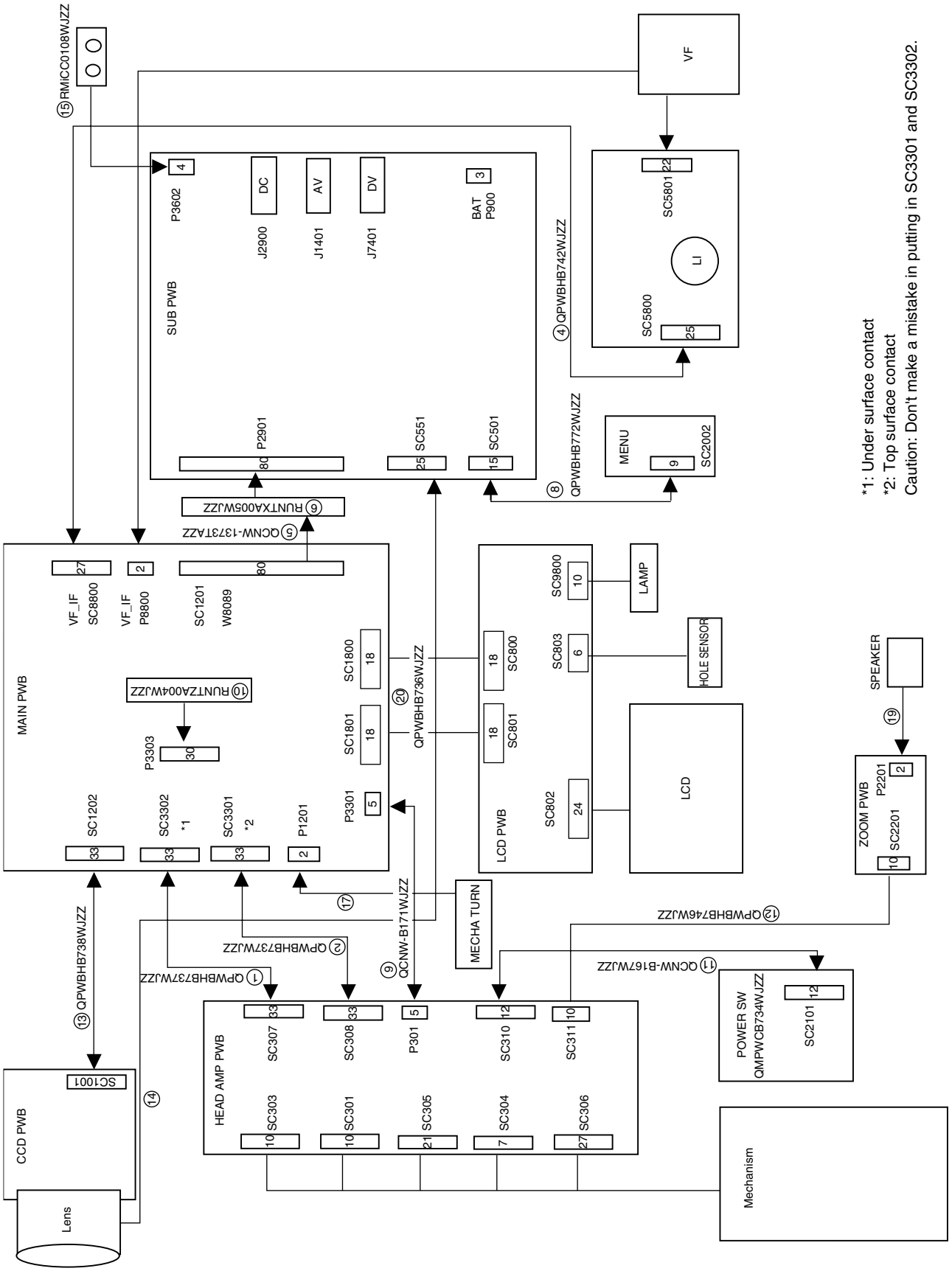
List of measuring jigs

· Color monitor TV · Digital voltmeter · DC power source · Audio generator (CR oscillator) · Frequency counter · AC adapter	· Stereo AV output cable (supplied) · Adjustment remote control (RRMCG0033TASA) · Signal generator (NTSC pattern generator LCG-401/ 401YC: Manufactured by Leader) · Oscilloscope	· Vector scope · Tape for recording · DC cable (supplied with AC adapter) · Extension wire of video section · Alignment tape 90ADDVC-TAPE (color bar) · Error rate adjustment tape (reference tape) RTPEVA001WJZZ

VL-Z1U Specifications of service jigs

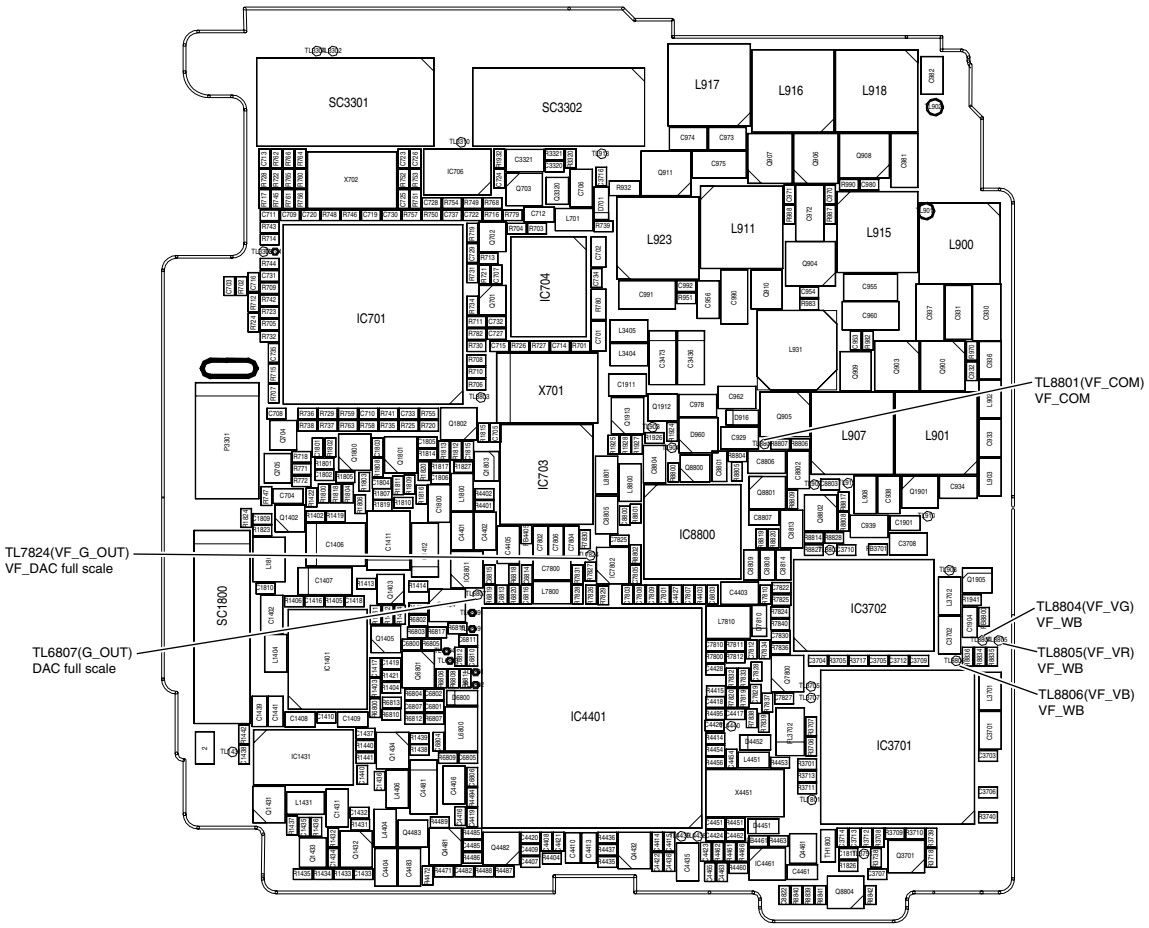
No.	Connection section	Connector REF. No.	No. of pins	New/ Cont.	Parts cord	Price code
1	H/A PWB — MAIN PWB①	SC307—SC3302	33P	N	QPWBHB737WJZZ	AN
2	H/A PWB — MAIN PWB②	SC308—SC3301	33P	N	QPWBHB737WJZZ	AN
4	MAIN — LITHIUM PWB	SC8800—SC5800	27P-25P		QPWBHB742WJZZ Product FPC used	AE
5	MAIN — RUNTA005WJZZ	SC1201	80P	C	QCNW-1373TAZZ	BQ
6	RUNTA005WJZZ — SUB	P2901	80P	N	RUNTZA005WJZZ	AX
8	Menu key — SUB	SC2002—SC501	9P-15P		QPWBHB772WJZZ Product FPC used	AE
9	H/A PWB — MAIN PWB	P301—P3301	5P		QCNW-B171WJZZ Product wire used	AF
10	TP jig for envelope checking	P3303	30B-B	N	RUNTZA004WJZZ	AW
11	Power supply	SC310—SC2101	12P		QCNW-B167WJZZ Product FFC used	AC
12	ZOOM	SC311—SC2201	10P	C	QPWBHB746WJZZ	AE
13	CCD PWB — MAIN	SC1001—SC1202	33P		QPWBHB738WJZZ Product FPC used	AD
14	Lens unit — SUB	SC551	25P		CLNS-A005RMA5 Product unit used	BQ
15	MIC — SUB	P3602	4P		RMiCC0108TAZZ Product unit used	AP
17	MECHA TURN — MAIN	P1201	2P		DUNTKB732PM00 Product unit used	AG
19	SPEAKER — ZOOM	P2201	2P		VSP0020P-B2WN Product unit used	AK
20	LCD UNIT — MAIN	SC1800/SC1801	18Px2		QPWBHB736WJZZ Product FPC used	AR

VL-Z1U Service jig configuration

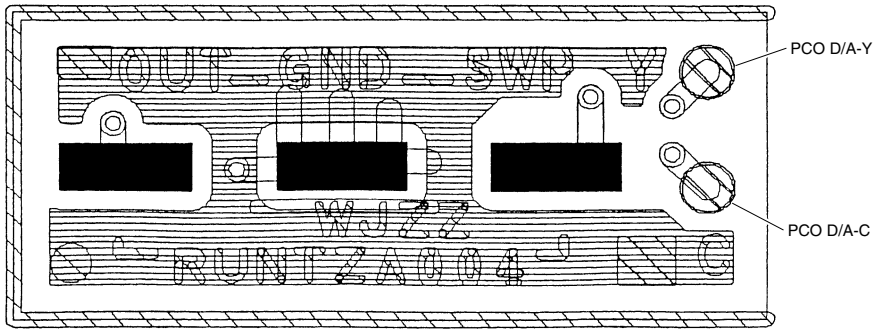


[TEST POINT]

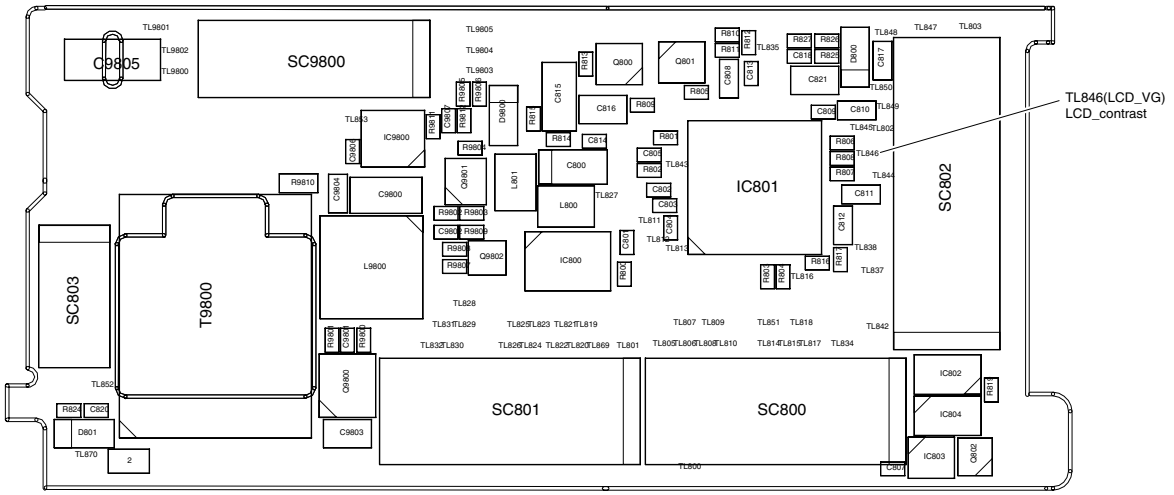
(Wiring board diagram: Main Side A)



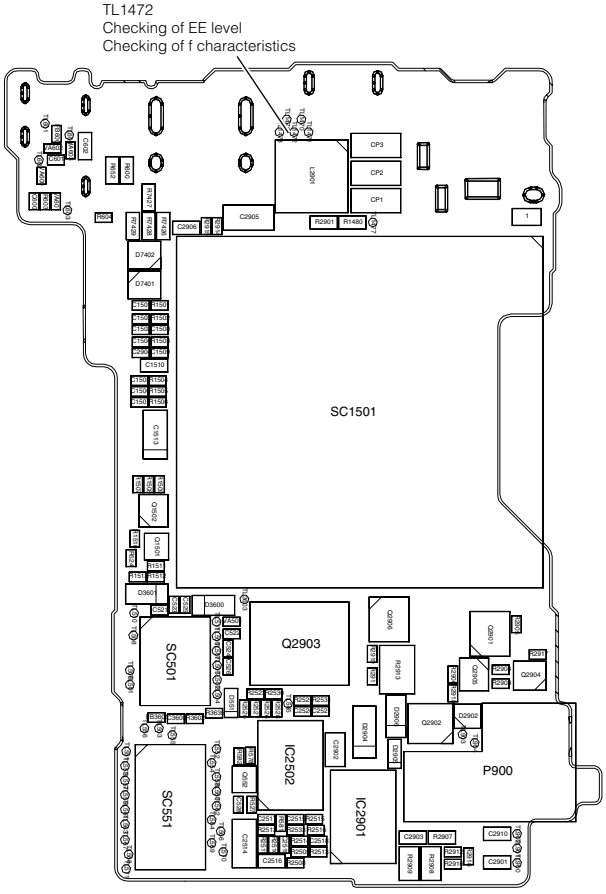
(Envelope checkup TP jig)



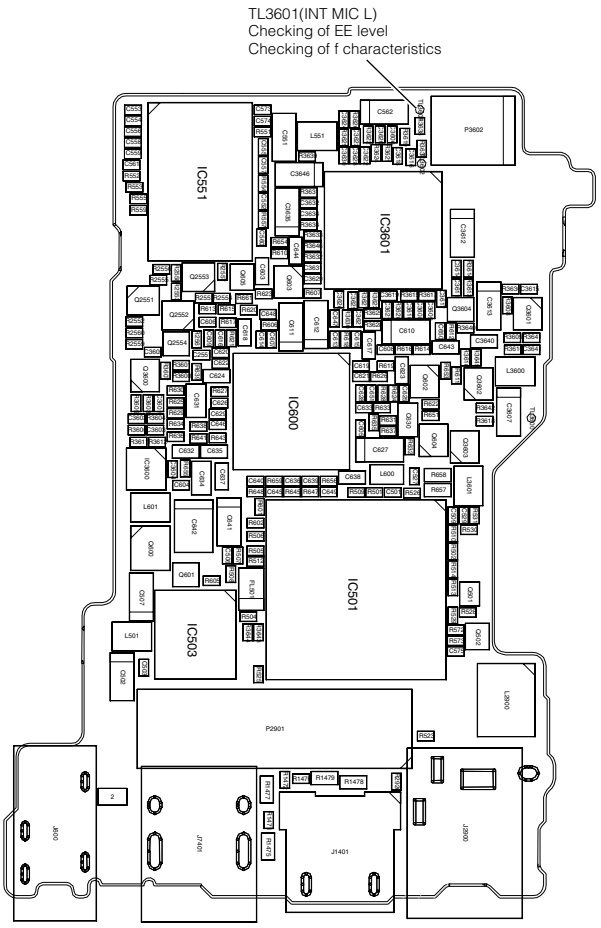
(Wiring board diagram: LCD Side A)



(Wiring board diagram: Sub Side A)



(Wiring board diagram: Sub Side B)



[Execution of adjustment]

Adjustment of servo and system controller

1. System code setting

It is necessary to set the following data items after replacing IC705 (E^2PROM).

<Adjusting method>

Select the VCR adjustment mode and set the data value at each address.

Code	Specifications		Destination		Specifications		Menu setting		Software switching		Calendar	
Address	01	09	02	0A	03	0B	04	0C	05	0D	07	0F
	A9	56	01	FE	B6	49	00	FF	00	FF	03	FC

Code	1394/exif model name											
Address	1A1	1A2	1A3	1A4	1A5	1A6	1A7	1A8	1A9	1BD	1BE	1BF
	56	4C	2D	5A	31	55	00	00	00	00	00	00

* After replacing IC705 (E^2PROM), make the following settings and then make adjustments.

(E^2PROM) data table

(1) Magnetic parametric system

Address	27	28	2B	25	26
Data	70	90	A0	70	A0

• Automatic adjustment

Mode	VCR adjustment mode
Adjusting method	1) Using command 12, select the VCR adjustment mode. 2) Using command 20, enable writing to the E^2PROM. 3) Using command 22, set the above-shown system codes according to the model. 4) Using the command, inhibit writing to the E^2PROM. 5) Using the command, exit the VCR adjustment mode.
Examples	• Replacement of E^2PROM (IC705)

• Manual adjustment

Mode	VCR ADJ mode
Adjusting method	1) Set the CAM/OFF/VCR selector switch to VCR. 2) Press "CONTINUE" → "VCR adjustment" on the remote control to enter the VCR mode. (At this time, "VCR ADJ" is displayed in the lower left part.) Enter the specified value at each address. · Shown below is the procedure for setting. 3) Select an address by increasing or decreasing the flashing numeric value with the FF or REW key and press the PB key to confirm it. 4) Set the flashing numeric value to the specified value by increasing or decreasing it with the FF or REW key and press the PB key to confirm it. 5) Press the STOP key to make it possible to select an address. 6) Repeat steps (3), (4) and (5) above until all the data items are set. Then press "CONTINUE" to exit the VCR mode. 7) Set the CAM/OFF/VCR selector switch to OFF.
Examples	·Replacement of E^2PROM (IC705)

2. Adjustment of HSWP

Mode	VCR ADJ mode
Adjusting method	1) Select the video mode and play back the alignment tape. 2) Press "CONTINUE" → "HSWP ADJ" keys on the remote control. → HSWP adjustment execution (When the adjustment is completed, "GOOD" is displayed on the LCD and ejecting is performed automatically.) If adjustment cannot be made, "NG" is displayed on the LCD.
Examples	· Replacement of mechanism · Replacement of E^2PROM

3. Adjustment of shutdown

Mode	VCR adjustment mode
Adjusting method	1) Set a recordable tape and select the camera mode. 2) Press "CONTINUE" → "TEST SEL" on the adjustment remote control to enter the TEST mode (T-01 flashing). 3) Select T-03 with the FF and REW keys and press "PB" key. 4) Adjust the power supply voltage so that TL904(+) becomes 6.00V ± 50mV as viewed from TL900(-). 5) Press the "Display change" button on the main unit. Turn OFF the power.
Examples	· Replacement of microcomputer (IC701), Regulator (IC704) and E²PROM (IC705)

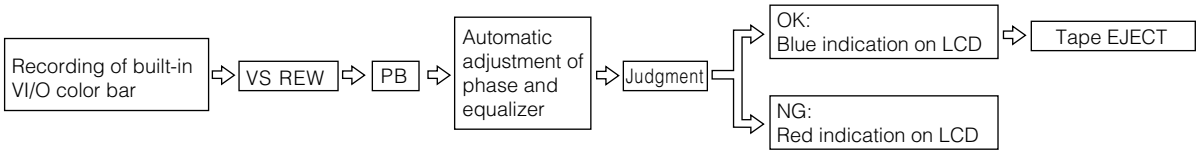
ADJUSTMENT OF MAGNETIC PARAMETRIC CIRCUIT SYSTEM

1. Adjustment of PLL VCO

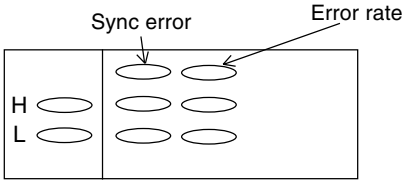
Mode	VCR ADJ mode
Adjusting method	1) Play back the alignment tape. (A tape recorded on this unit may be used instead of the alignment tape.) 2) Select the adjustment mode (V-ADJ). 3) Select address "2A" to call up the data. 4) Using the FF and REW keys, adjust the data value so that reproduced pictures are shown. (Even if block noise occurs at this time, it is allowable.) Note: After the address "2A" data has been adjusted, be sure to make the error rate adjustment.
Examples	· Replacement of circuit board (main) · Replacement of E²PROM

2. Adjustment of phase and equalizer → (To be performed in the VCR mode)

Mode	VCR ADJ mode
Adjusting method	1) Set a error rate adjustment tape (RTPEVA001WJZZ). 2) Select test mode 0F using the adjustment remote control. Automatic adjustment will be started (the following sequence will be performed automatically). 3) Turn ON and OFF the power. 4) Checking of error rate Select test mode 0B using the adjustment remote control. 5) Manual adjusting method (video adjustment mode) * In this adjustment, play back a tape recorded on this unit in the LP mode. Change the data values at addresses 26 and 2B for the phase and the data values at addresses 25 and 27 for the equalizer so that the error rate is minimized.
Examples	· Replacement of mechanism · Replacement of circuit board (main) · Replacement of E²PROM



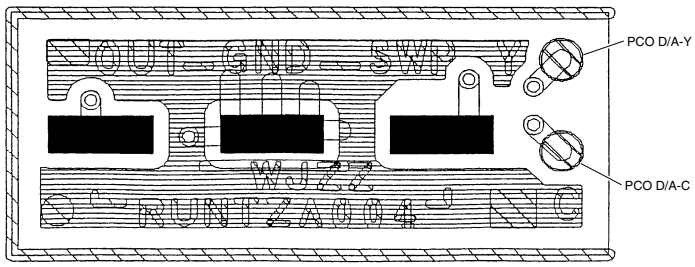
	Phase	Equalizer
H ch side	2B	27
L ch side	26	25



Sync error	20 or less
Error rate	200 or less (SP Mode)
	330 or less (LP Mode)

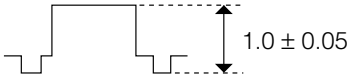
ADJUSTMENT OF VIDEO I/O CIRCUIT SYSTEM

(Envelope checkup TP jig)



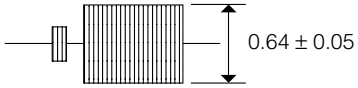
1. Adjustment of PCO D/A-Y

Measurement point	(On envelope checkup TP jig)		
Address	VCR ADJ 566	Mode	EE mode
Adjusting method	①Disconnect the DC cable or battery from the unit. ②Connect the envelope checkup TP jig to P3303. ③Reconnect the DC cable or battery to the unit, and turn on the power. (on the shooting side) 1) Connect the AVS cable to the monitor (TO). 2) Select the adjustment mode (V-ADJ). 3) Select address "566" to call up the data. (A 100% white signal appears.) 4) Set the "Y" signal of the envelope checkup TP jig to 1.0 ± 0.05Vp-p by changing the data value with the FF/REW keys.		
Examples	· Replacement of IC705, IC4401, IC1401		



2. Adjustment of PCO D/A-C

Measurement point	(On envelope checkup TP jig)		
Address	VCR ADJ 567	Mode	EE mode
Adjusting method	①Disconnect the DC cable or battery from the unit. ②Connect the envelope checkup TP jig to P3303. ③Reconnect the DC cable or battery to the unit, and turn on the power. (on the shooting side) 1) Connect the AVS cable to the monitor (TO). 2) Select the adjustment mode (V-ADJ). 3) Select address "567" to call up the data. 4) Set the "C" signal of the envelope checkup TP jig to 0.64 ± 0.05Vp-p by changing the data value with the FF/REW keys.		
Examples	· Replacement of IC705, IC4401, IC1401		



ADJUSTMENT OF VF CIRCUIT

(Wiring board diagram: Main Side A)

1. Setteing of parameters (Main PWB)

* Preset the following data.

Address	582	585	597	5B9	5E4	5E5	580	588	589	58D	5A2	5A4	5A7	5A8	5A9	5B5	5B7	5B8	5C9	5D3
NTSC	3D	40	00	—	—	—	00	00	00	28	00	—	F1	—	40	8B	8B	7D	E0	—
PAL	—	—	00	00	18	18	00	00	00	—	00	D0	F1	E7	E7	8B	8B	7D	E0	04

2. Adjustment of VF_COM amplitude (Main PWB)

Measurement point	TL8801(VF_COM)	Address	VCR ADJ 32
Procedure	1) Set the data value at address 5EB (TESTSW2) to 77. 2) Connect the digital voltmeter to TL8801 (VF_COM). At address 32 (VF_DAC_C), adjust the DC voltage to the adjustment rating.		
Adjustment rating	3.75V ± 50mV		
Examples	· Replacement of IC705		

3. Adjustment of VF_DAC full scale (Main PWB)

Measurement point	TL7824(VF_G_OUT)	Address	VCR ADJ 59E
Procedure	1) Set the data values at addresses 587 (GRYLEV)/58C (γ PEAK)/5EB (TESTSW2) and 5E6 (OSDSW) to FF/80/77 and 00, respectively. (The LED shows nothing.) 2) Set the data values at addresses 5A0 (CLAMP)/58D (PEDESTAL) and 5B9 (VCLK3 INV) to 00/80 and 48, respectively. 3) Connect the digital voltmeter to TL7824 (VF_G_OUT) and measure the DC voltage. * The measured voltage is (DA_VF-G). 4) Set the data values at addresses 5A0 (CLAMP) and 58D (PEDESTAL) to 80 and 00, respectively. 5) At address 59E (VF_DAC_G), adjust the DC voltage to the adjustment rating. 6) Preset the data values at addresses 59D (VF_DAC_B) and 59F (VF_DAC_R) so that they are the same as the data value at address 59E (VF_DAC_G). 7) Reset the data at addresses 587 (GRYLEV)/58C (γ PEAK)/58D (PEDESTAL)/5A0 (CLAMP)/5B9 (VCLK3 INV)/5E6 (OSDSW) and 5EB (TESTSW2) to their original values. (Initial values: 40/C5/38/28/42/71 and 7F)		
Adjustment rating	DA_VF-G +0.23V ± 10mV		
Examples	· Replacement of IC705, IC4401		

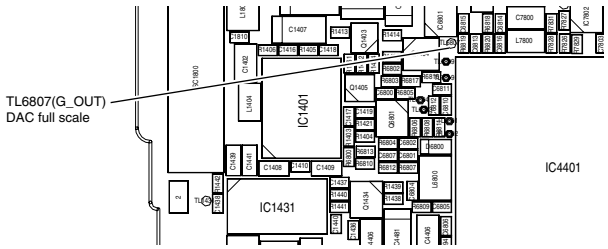
4. Adjustment of VF_WB (Main PWB)

Measurement point	TL8804(VF_VG), TL8805(VF_VR), TL8806(VF_VB)
Address	VCR ADJ 58E, 590
Procedure	1) Set the data values at addresses 587 (GRYLEV) and 5E6 (OSDSW) to 80 and 70, respectively. 2) Connect the oscilloscope to TL8804 (VF_VG) and TL8805 (VF_VR), and at address 58E (VF_WB-R), adjust the amplitude to the adjustment rating. 3) Connect the oscilloscope to TL8804 (VF_VG) and TL8806 (VF_VB), and at address 590 (VF_WB_B), adjust the amplitude to the adjustment rating.
Adjustment rating	0mV ± 40mV, 0.1mV ± 40mV
Examples	· Replacement of IC705, IC4401, IC8801

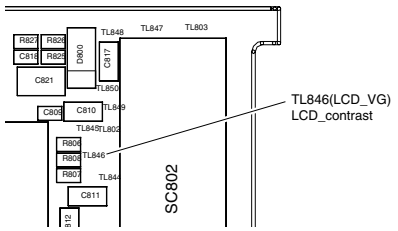
ADJUSTMENT OF LCD CIRCUIT

When making this adjustment, set the backlight switch to "Normal".

(Wiring board diagram: Main Side A)



(Wiring board diagram: LCD Side A)



1. Setteing of parameters (Main PWB)

The same adjusting procedure and connections as described for the VCR section are used.

* Preset the following data.

Address	046	047	048	049	099	0A5	0A6	0A7	0B5	406	407	408	409	427	435	40A	40B	41E
NTSC	1E	54	6B	76	01	40	7E	15	64	7F	7F	20	20	E7	24	70	70	00
PAL	—	—	—	—	—	—	—	—	69	—	—	—	—	E5	—	—	—	—

Address	090	098	09A	0A3	0A4	097	40E	40F	42B	42D	42F
NTSC	7F	—	40	91	96	C2	—	—	—	—	—
PAL	—	00	21	A2	A8	C9	14	14	03	09	06

2. Adjustment of DAC full scale (Main PWB)

Measurement point	TL6807(G OUT)	Address	VCR ADJ 094(G)
Mode	VCR AV input		
Adjusting method	1) Set the data values at addresses 41E/086/41C and 410 to FF/80/77 and 00, respectively. (The LED shows nothing.) 2) Set the data values at addresses 096/411 and 0A8 to 00/80 and 48, respectively. 3) Connect the digital voltmeter to TL6807 (G_OUT) and measure the DC voltage. * The measured voltage is (DA_VG). 4) Set the data values at addresses 096 and 411 to 80 and 00, respectively. 5) At address 094, adjust the DC voltage to the adjustment rating. 6) Preset the data values at addresses 093 and 095 so that they are the same as the data value at address 094. 7) Reset the data at addresses 41E/086/096/41C/411/0A8 and 410. (Initial value: 00/C5/28/7F/28/42 and 7D)		
Adjustment rating	DA_VG + 0.35V ± 10mV		
Examples	· Replacement of IC705, IC4401		

3. Setteing of parameters (LCD PWB)

* Preset the following data.

Address	7C0	7C6	7C7	7CB
NTSC	49	00	40	40
PAL	49	00	40	40

4. Adjustment of LCD_ contrast (LCD PWB)

Measurement point	TL846(LCD_VG)	Address	VCR ADJ 7C3
Test signel	0.900V		
Procedure	1) Set the data value at address 41E (GRYLEV) to BE. (100% white display) 2) Set the data value at address 41C (TESTSW2) to 77. (1H inverted STOP) 3) Connect the digital voltmeter to TL846 (LCD_VG), and at address 7C3 (CONTRAST), adjust the DC voltage to the adjustment rating.		
Adjustment rating	± 50mV		
Examples	· Replacement of IC801, IC800		

5. Adjustment of COM-Bias (with the unit settings complete)

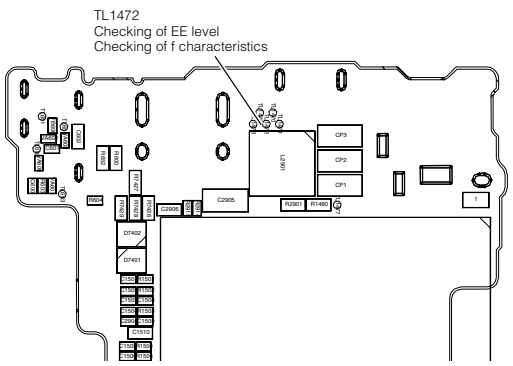
Measurement point	LCD panel display surface	Address	VCR ADJ 7C9
Mode	VCR AV input		
Adjusting method	1) Apply a 40% white signal to the AV input. 2) Set the illuminometer (TOPCON IM-3) on the LCD panel surface. (Cut off outside light.) 3) Minimize the ripple of the output waveform of the illuminometer.		
Adjustment rating	Minimum value Response time: 0.6 sec		
Remarks	Make adjustment after five minutes or more of aging.		
Examples	· Replacement of LCD panel · Replacement of IC800		

6. Adjustment of W/B (with the unit settings complete)

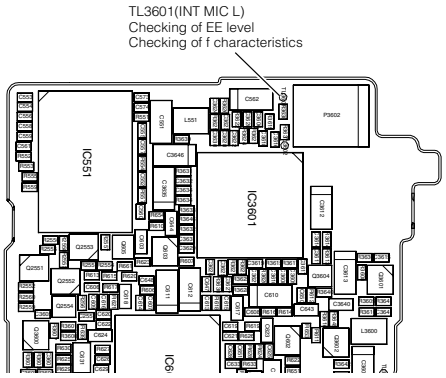
Measurement point	LCD panel display surface	Address	VCR ADJ 41F, VCR ADJ 421
Mode	VCR AV input		
Adjusting method	1) Apply a 40% white signal to the AV input. 2) Apply a 40% white signal to the standard monitor. Make adjustment so that the image on the LCD becomes equivalent to the image on the standard monitor.		
Remark	Standard monitor		
Examples	· Replacement of LCD panel · Replacement of IC4401, IC705		

ADJUSTMENT OF MIC AMP CIRCUIT

(Wiring board diagram: Sub Side A)



(Wiring board diagram: Sub Side B)



1. Checking of EE level (Sub PWB)

Measuring instrument	Valve voltmeter	Measurement point	TL1472
Mode	P-ON (CAM)	Adjustment rating	-6.5dBs ± 3dB
Test signal	1kHz, -54dBs sine wave		
Adjusting method	1) Apply a 1kHz, -54dBs sine wave to TL3601 (INT MIC L). 2) Check that the signal levels of TL1472 Audio-L out satisfy the adjustment rating.		
Examples	————		

2. Checking of f characteristics (Sub PWB)

Measuring instrument	Valve voltmeter	Test point	TL1472
Mode	P-ON (CAM)	Adjustment rating	(On a base of 1kHZ) 100Hz : -3.5dBs ± 3dB 10kHz : -1.5dBs ± 3dB
Test signal	100Hz and 10kHz , -54dBs sine wave		
Adjusting method	1) Apply a -54dBs, 100Hz sine wave and then a 10kHz , -54dBs sine wave to TL3601 (INT MIC L). 2) Check that the signal levels of TL1472 Audio-L out satisfy the adjustment rating on a base of 1kHZ in each case.		
Examples	————		

Setting of MODEL ID

Address	VCR ADJ FD, FE, FF		
Mode	VCR mode	Setting rating	10, 20
Setting method	1) Using command 12, select the VCR adjustment mode. 2) Using command 20, enable writing to the E^2PROM. 3) Set MODEL ID at each address.		
Examples	Replacement of E^2PROM (IC705)		

Address	FDh	FEh	FFh
Date	10h	20h	56

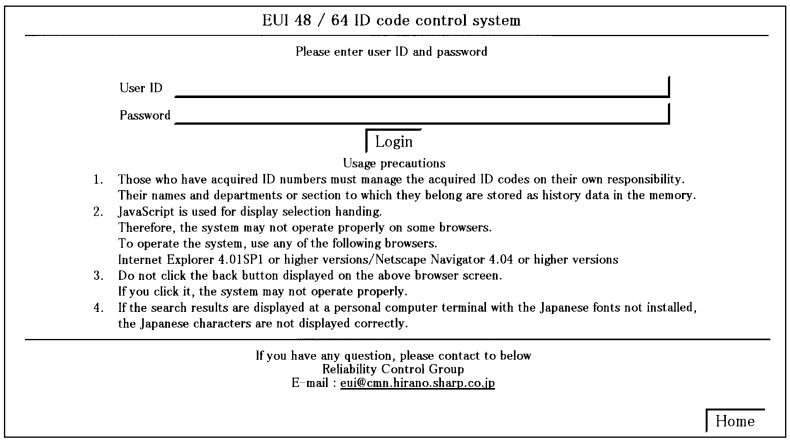
DV INTERFACE (IEEE1394) ID SETTING

This unit has a DV interface function conforming to IEEE1394. Each unit therefore must have its own ID number. Because this ID is written into the E²PROM (IC705) in the main PWB, it is necessary to newly write the ID newly when this IC is replaced.

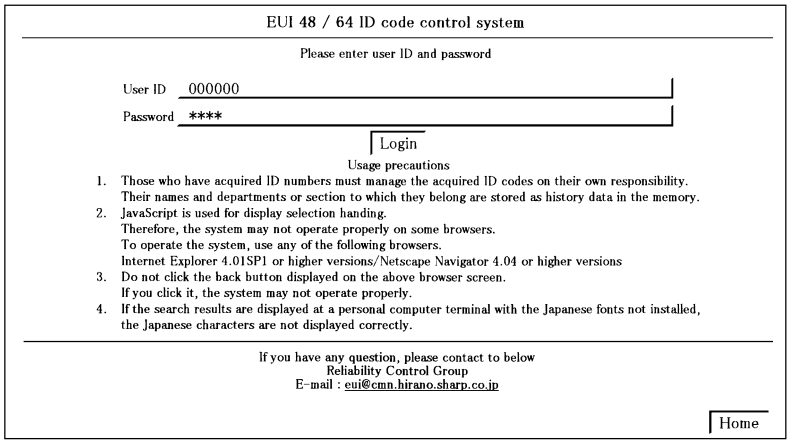
Address	180, 17F, 17E	Mode	VCR
Setting rating	ID number obtained from the URL below		
Setting method	1) Refer to the ID code application below. 2) Place the data acquired in step (1) at the corresponding address in the VCR mode. * Download an ID number and write it on the main unit according to the notice from the AV System Group "Issue No.S8-001".		
Examples	• Replacement of E²PROM (IC705 in main PWB)		

■ ID code application

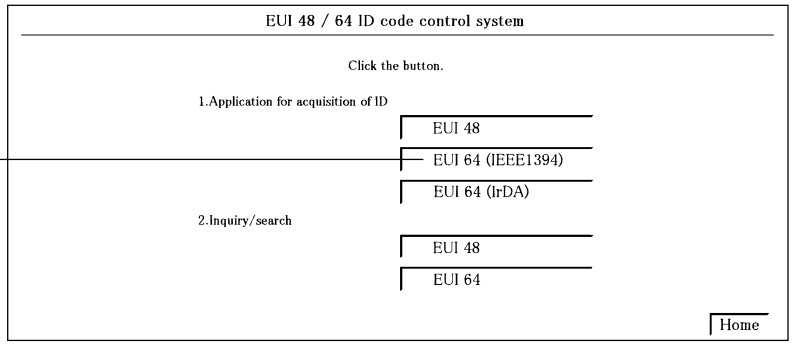
1. Connect with the EUI48/64 ID code control system.
   (1) Start the Internet Explorer or Netscape Navigator.
   (2) Access the following address.(URL: http://www.rcg.kami.sharp.co.jp/quics/index.html)
   Select "EUI48/64 ID code control system" among the "Service" items.
   Note: If you want to establish a connection by directly inputting the URL, please input the following.
   URL:http://www1.rcg.kami.sharp.co.jp:7000/adrs_agt/adrs_dba/ide00010.main
   The login screen will appear.


EUI 48 / 64 ID code control system
Please enter user ID and password
User ID
Password
Login
Usage precautions
1. Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility. Their names and departments or section to which they belong are stored as history data in the memory.
2. JavaScript is used for display selection handing. Therefore, the system may not operate properly on some browsers. To operate the system, use any of the following browsers. Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions
3. Do not click the back button displayed on the above browser screen. If you click it, the system may not operate properly.
4. If the search results are displayed at a personal computer terminal with the Japanese fonts not installed, the Japanese characters are not displayed correctly.
If you have any question, please contact to below
Reliability Control Group
E-mail : eui@cmn.hirano.sharp.co.jp
Home

(3) Input the [User ID] and [Password]. Click on [Login].

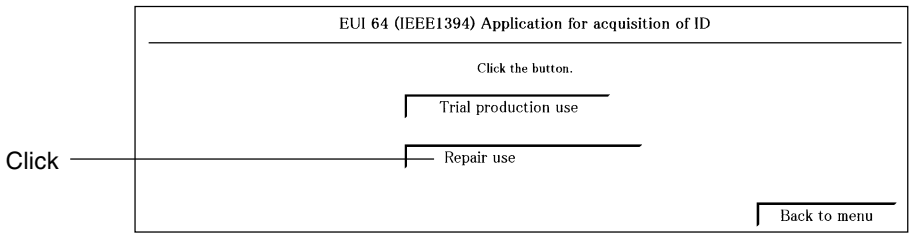

EUI 48 / 64 ID code control system
Please enter user ID and password
User ID 000000
Password ****
Login
Usage precautions
1. Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility. Their names and departments or section to which they belong are stored as history data in the memory.
2. JavaScript is used for display selection handing. Therefore, the system may not operate properly on some browsers. To operate the system, use any of the following browsers. Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions
3. Do not click the back button displayed on the above browser screen. If you click it, the system may not operate properly.
4. If the search results are displayed at a personal computer terminal with the Japanese fonts not installed, the Japanese characters are not displayed correctly.
If you have any question, please contact to below
Reliability Control Group
E-mail : eui@cmn.hirano.sharp.co.jp
Home

(4) Click on [EUI 64 (IEEE1394)] from
[1. Application of acquisition of application for ID].

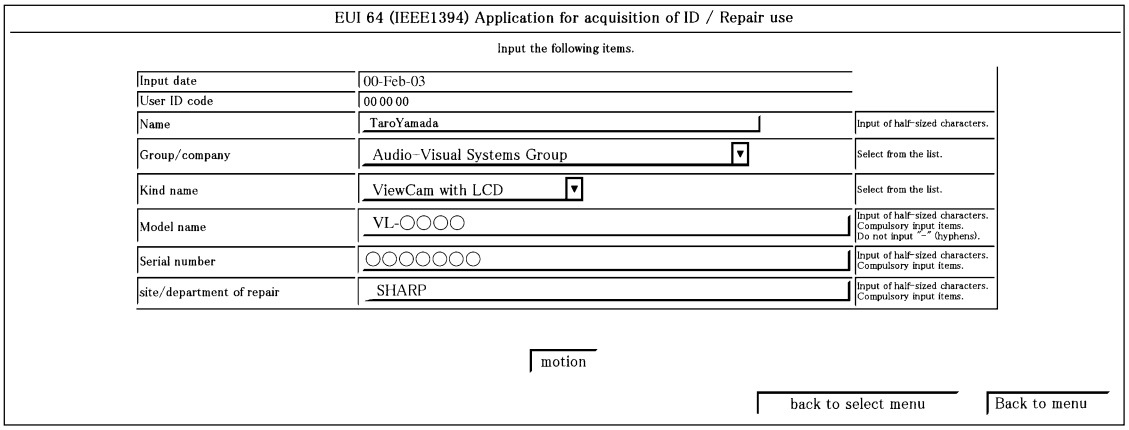


Click

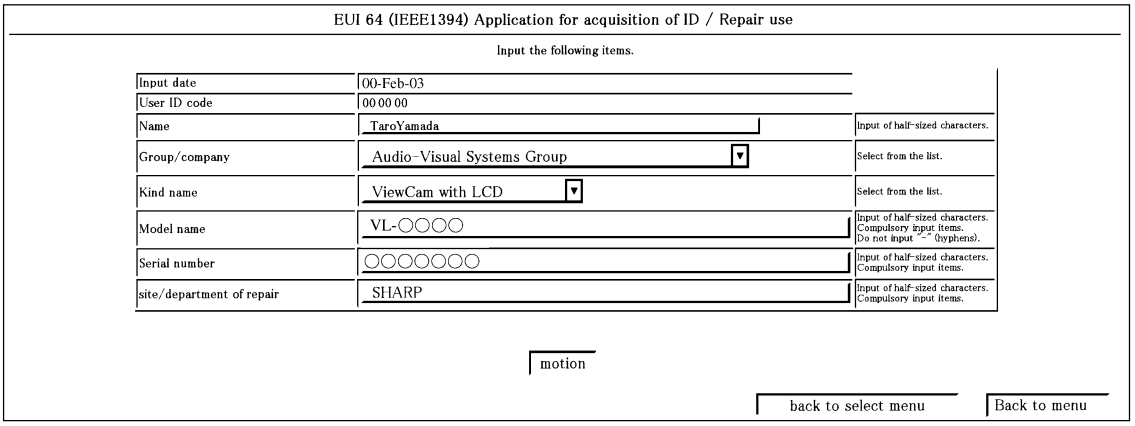
(5) Click on [Repair use].



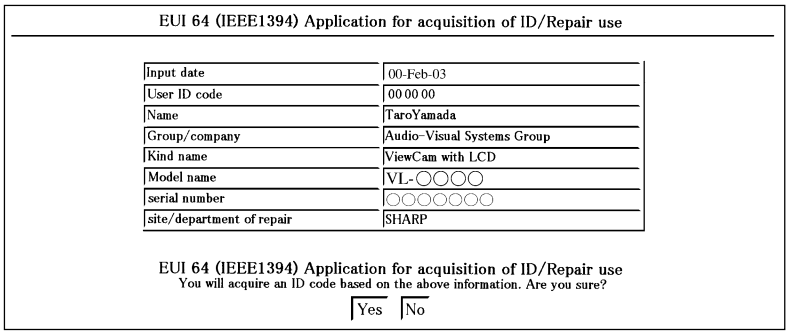
(6) Input the necessary information for the application.
Be sure to input the necessary input items.
Select the [Group/company] and [Kind name] from the list.
Input the [Model name] in half-size characters.
Input the [Serial number] in half-size characters.
Input the [Site/department] of repair in full-size characters.



(7) Click on [Motion].
The confirmation screen will appear.



(8) Click on [Yes].



2. Print the application result.
(1) Print out the application result screen.
Control the application result as evidence.
To print it out, select "Print (P) "under "File (F)" on the menu bar or click on the print button on the tool bar.
(2) Click on [Menu] to complete the application.
If you make application in succession, repeat steps (1) to (8).
To end it, click on [End] on the menu screen.

10.2. Adjustment of camera section

10-2-1. Servicing of camera section

(1) Camera adjustment should be performed with the set completed.

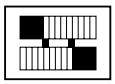
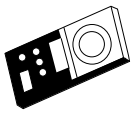
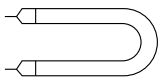
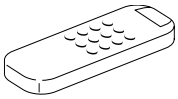
(2) Subjects, measuring instruments and jigs necessary for servicing and adjustment of the camera section

• Gray scale chart • Color bar chart • Oscilloscope • Digital voltmeter • Halogen lamp: 2 pcs. • Vector scope	• Frequency counter • Illumination meter • Color temperature meter • Color temperature conversion filter HOYA "LB-165" • Color video monitor	• Video output cable • AC adapter • Extension cables • Adjustment remote control

10-2-2. List of camera jigs

Sketch

<Note: Order of descriptions> 1. Jig name 2. Part code 3. Code

 1. Gray scale chart (390 x 520 mm) 2. JiGCHART-1 3. CP	 1. Color bar chart (240 x 320 mm) 2. JiGCHART-4 3. DA	 1. Illuminometer (0 to 3000 lx) 2. JiGMETER-1 3. CT	 1. Color temperature meter (1600 to 40000 degrees K) 2. JiGMETER-2 3. EL
1. Color temperature conversion filter (3200 degrees K ⇒ 6800 degrees K) 2. JiGHOYA-LB165 3. BN	 1. PC plate connector drawer 2. JiGTH-SS10 3. AW	 1. Adjustment remote control 2. RRMCG0033TASA 3. BT	

10-2-3. Adjustment of camera section

(1) Preparations and checking before adjustment

1) Adjust the lighting so that the illumination intensity is about 3000 lx and that uniform illumination is provided on the whole pattern. (It is desirable that two or more lamps be used as light sources.) Set the color temperature at 3200K.

2) The test pattern used should be free from stains and color deterioration.

3) If a failure occurs in the electric circuit, be sure to locate the fault using a measuring instrument and perform repairing or replacement before making adjustment of camera section.

(2) Adjustment remote control RRMCG0033TASA

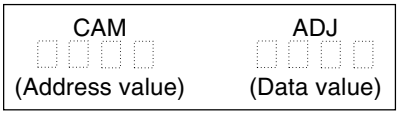
The adjustment remote control (RRMCG0033TASA) is used to adjust the camera section of this unit. Adjustment is made by writing data into the E^2PROM(IC705) at particular addresses using the remote control via the microcomputer.

1) To adjust the camera

Press the "CONTINUE" key and then press the "CAM ADJ" key.

The following display will appear on the LCD screen, allowing you to make adjustment.

2) Description of display



(It means camera adjustment.)

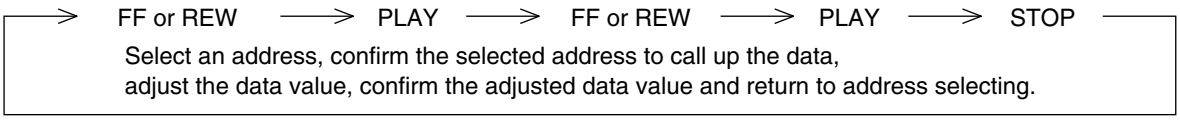
* This unit has addresses 0000 to 07FF.

* Byte data (last two digits valid) and 2-byte data (last three digits valid) are available.

3) Description of remote control keys

"FF" key: It is used to increase the address value and data value.
"REW" key: It is used to decrease the address value and data value.
"PLAY" key: It is used to confirm the selected address to call up the data. It is also used to confirm the data value.
"STOP" key: It is used to clear the data and make it possible to select an address.

4) Operation flow


FF or REW
PLAY
FF or REW
PLAY
STOP
Select an address, confirm the selected address to call up the data,
adjust the data value, confirm the adjusted data value and return to address selecting.

5) After completion of adjustment

Press the "CONTINUE" key to make the display "CAM ADJ" disappear.

Note: Before pressing the "CONTINUE" key, check that the unit is not in the auto focus adjustment mode or the camera signal system adjustment mode (described later).

● Camera section adjustment mode

The auto focus adjustment mode and the camera signal system adjustment mode are used for adjustment of the camera section.

Note: The adjustment data are stored in the E²PROM as shown below. When making changes, it is therefore necessary to perform rewriting of data and checking of the latest data.

1) E²PROM (IC705) on main unit

Lens-related data and signal system adjustment data

(3) Auto focus adjustment mode

· The camera of this unit features automatic focussing by means of a microcomputer.

The auto focus circuit of this unit performs focusing operation based on the principle that the high frequency component in the video signal increases as focus is achieved. In addition, in order to achieve a large magnification with a small-size lens, the inner focus system is employed in which a master lens (rear lens) is moved forward and backward for focusing. This inner focus system enables full range focussing with a focal length range of 10 mm to infinite distance. However, because the maximum allowable distance from the closest subject to the tele end is 1.5 m, a subject less than 1.5 m away from the tele end cannot be focused on if it is shot at the tele end. In such cases, zooming-out is performed automatically for focusing.

The major factors of the auto focus system are as follows:

- Detection of master lens position
- Detection of iris position
- Detection of zoom lens reference position

These detection data are stored in the E²PROM.

Therefore (3) auto focus adjustment should be performed in the following cases.

- When the lens is replaced
- When the CCD is replaced
- When the E²PROM is replaced
- When the CCD circuit board and CAMHEAD circuit board are replaced

1) How to enter the auto focus adjustment mode

Set the data value at address "13FE" to " ▯▯ 01".

⇩

The screen will be white-faded temporarily and the auto focus adjustment mode will be established.

* When the auto focus adjustment mode is established, make adjustment according to "(5) Camera adjusting procedure".
* In the auto focus adjustment mode, lens operation cannot be performed.

2) How to enter the normal mode

Set the data value at address "13FE" to " ▯▯ FF".

⇩

The screen will be white-faded temporarily and the normal mode will be established.

⇩

Pressing the "CONTINUE" key will make the display "CAM ADJ" disappear and make it possible to perform normal operation.

(4) Camera signal system adjustment mode

In the camera signal system adjustment mode, the auto white balance function is stopped in order to adjust the camera. In this mode, the white balance is set to the indoor mode and focussing is performed manually.

1) How to enter the camera signal system adjustment mode

Set the data value at address "0000" to " 00".

⇩

The camera signal system adjustment mode will be established.

*When the camera signal system adjustment mode is established, make adjustment according to "(5) Camera adjusting procedure".

2) How to enter the normal mode

Set the data value at address "0000" to " FF".

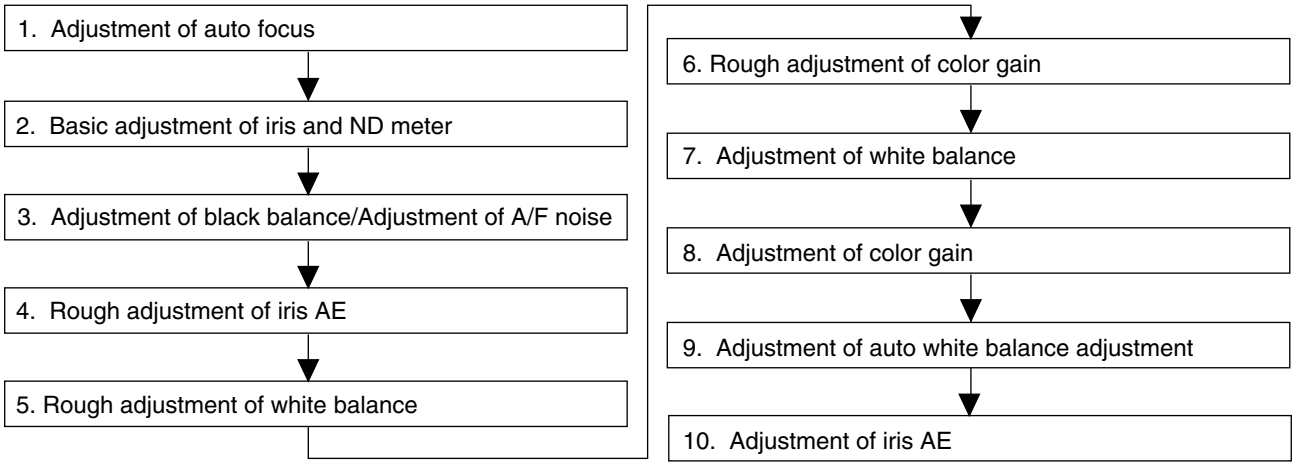
⇩

The normal mode will be established.

⇩

Pressing "CONTINUE" key will make the display "CAM ADJ" disappear and make it possible to perform normal operation.

(5) Camera adjusting procedure


1. Adjustment of auto focus
2. Basic adjustment of iris and ND meter
3. Adjustment of black balance/Adjustment of A/F noise
4. Rough adjustment of iris AE
5. Rough adjustment of white balance
6. Rough adjustment of color gain
7. Adjustment of white balance
8. Adjustment of color gain
9. Adjustment of auto white balance adjustment
10. Adjustment of iris AE

* "1. Adjustment of auto focus" is performed in the auto focus adjustment mode. The other adjustments are performed in the camera signal system adjustment mode.

10-2-4. Adjusting procedure

Item	Adjustment method

(1) Adjustment of auto focus

The following adjustments are performed automatically by establishing the auto focus adjustment mode and writing the following data at address "13FD" sequentially. The adjustment items are as shown in the table below. When an adjustment is completed normally, data "FF" is written, which should be confirmed before proceeding to the next adjustment.

Address	Data	Adjustment item
13FD	0012	Adjustment of wide end
	0008	Adjustment of tele end focus ∞ position
	0006	Adjustment of wide end focus ∞ position
	000D	Adjustment of zoom tracking

Note 1: During the adjustment of ∞ position, a subject should be shot actually. Make this adjustment while shooting a subject with a clear-cut outline. In the case of the adjustment of tele end focus ∞ position in particular, if it is performed without shooting a distant subject actually, the ∞ position will not be adjusted properly.
Adjustment of wide end focus ∞ position: 3 m or more
Adjustment of tele end focus ∞ position: 50 m or more

Note 2: In the case of the adjustment of ∞ position, the depth of field is important in insuring accuracy. If the depth of field is deep, the ∞ position may be adjusted improperly the subject hardly falls out of focus. Make this adjustment with the depth of field being shallow (the iris opened).

It is possible to open the iris using the high-speed shutter.

1. Establish the normal mode.
2. Call the V-V adjust sports mode in normal operation. (Refer to the instruction manual.)
3. Display "CAM ADJ" by using the remote control for servicing.
4. Establish the auto focus adjustment mode.
5. Perform the adjustment of ∞ position.
6. After the completion of the adjustment of ∞ position, set the V-V adjust back to the off position.

(2) Basic adjustment of iris

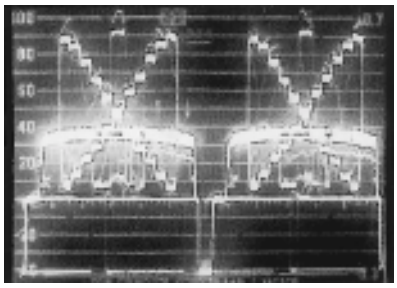
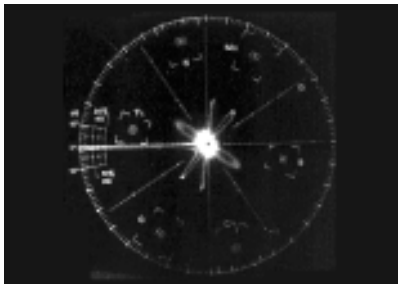
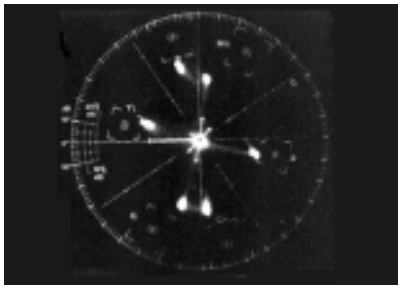
It is performed to adjust the operating point of the hall element installed in the iris meter.
The following adjustments are performed automatically by writing the following data at address "13FD" sequentially in the camera signal system adjustment mode. The adjustment items are as shown in the table below. When an adjustment is completed normally, data "00FF" is written automatically.

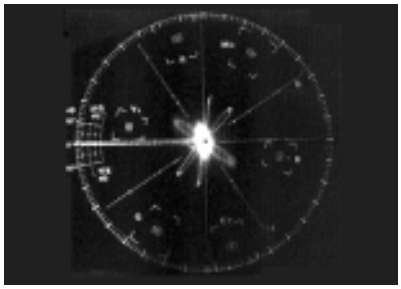
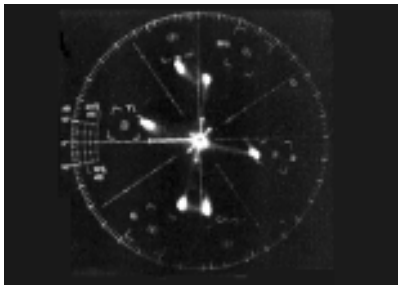
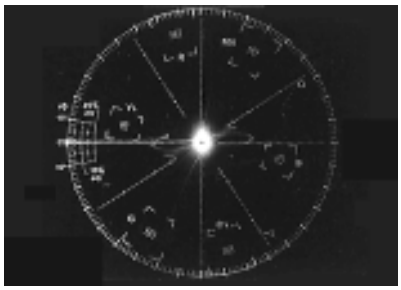
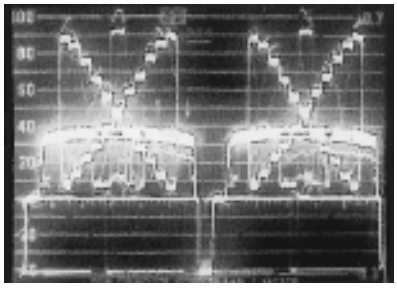
Address	Data	Adjustment item
13FD	0009	Adjustment of hall offset
	000A	Adjustment of iris offset
	000B	Adjustment of iris close

After exiting the auto focus adjustment mode (writing data " FF" at address "13FE"), establish the camera signal system adjustment mode (writing data " 00" at address "0000").

(3) Adjustment of black balance/Adjustment of A/F noise

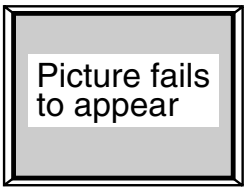
This adjustment is performed automatically by writing data " 01" at address "0001". When the adjustment is completed normally, data "00FF" is written automatically.

Item	Adjustment method
(4) Rough adjustment of iris AE • Measurement terminal: S terminal luminance signal output (75 Ω termination) • Address: "0002" AE_CVT • Measuring instrument: Oscilloscope (horizontal cycle) • Object: Grey scale • Data changing range: "0000" to "00FE"	1) While shooting the gray scale normally, observe the video output using the oscilloscope. By rewriting the data at address "0002", adjust the white luminance signal level to 720±10mVp-p and the gray luminance signal level (on the gray scale background) to 360±10mVp-p.  100mV/div
(5) Rough adjustment of white balance • Measurement terminal: EE output • Address: "0090" CGAIN_KR_W "0092" CGAIN_KB_W • Measuring instrument: Vector scope • Object: Grey scale • Data changing range: "0000" to "03FF"	1) While shooting the gray scale normally, observe the monitoring screen of the vector scope. By rewriting the data at addresses "0090" and "0092", position the luminescent spot so that the following burst ratio is obtained. R-Y 0 ± 5% B-Y 0 ± 5% 
(6) Rough adjustment of color gain • Measurement terminal: EE output • Address: "0338" CGIN RYG "033A" CGIN BYG "0335" CMAT RYG "0333" CMAT BYG "033B" Yellow amplitude "0334" Yellow phase • Measuring instrument: Vector scope • Object: Color bar chart • Data changing range: "0000" to "00FF"	1) Shoot the color bar chart and adjust the field angle so that the white level becomes 600mV. While observing the monitoring screen of the vector scope, rewrite the data at addresses "0338", "033A", "0335", "0333", "033B" and "0334" so that the red, blue and yellow luminescent spots are positioned as shown below. (As for the burst gain, gain setting of the vector scope should be made at the 75% Amplitude point on the B-Y axis.)  Adjustment address Red amplitude 1.82 ± 0.1 time (burst ratio) : "0338" Blue amplitude 1.52 ± 0.1 time (burst ratio) : "033A" Yellow amplitude 1.18 ± 0.1 time (burst ratio) : "033B" Red phase 103° ± 2° : "0335" Blue phase 343° ± 2° : "0333" Yellow phase 165° ± 2° : "0334"

Item	Adjustment method
(7) Adjustment of white balance • Measurement terminal: EE output • Address: "0090" INDOOR_W/B R "0092" INDOOR_W/B R • Measuring instrument: Vector scope • Object: Grey scale • Data changing range: "0000" to "03FF"	1) Perform the adjustment of white balance repeatedly. 
(8) Adjustment of color gain • Measurement terminal: EE output • Address: "0338" CGIN RYG "033A" CGIN BYG "0335" CMAT RYG "0333" CMAT BYG "033B" Yellow amplitude "0334" Yellow phase • Measuring instrument: Vector scope • Object: Waveform monitor color bar chart • Data changing range: "0000" to "00FF"	1) Perform the color gain adjustment repeatedly.  Adjustment address Red amplitude 1.82 ± 0.05 time (burst ratio) : "0338" Blue amplitude 1.52 ± 0.05 time (burst ratio) : "033A" Yellow amplitude 1.18 ± 0.05 time (burst ratio) : "033B" Red phase 103° ± 1° : "0335" Blue phase 343° ± 2° : "0333" Yellow phase 165° ± 2° : "0334"
(9) Adjustment of auto white balance adjustment • Measurement terminal: EE output • Address: "0016" OUTDOOR R "0018" OURDOOR B • Measuring instrument: Vector scope • Object: Grey scale • Data changing range: "0000" to "03FF"	1) Set the color temperature conversion filter (LB165) on the lens. 2) While shooting the gray scale normally, observe the monitoring screen of the vector scope. By rewriting the data, position the luminescent spot so that the following burst ratio is obtained. R-Y 0 ± 5% (burst ratio) B-Y 0 ± 5% (burst ratio) 
(10) Adjustment of iris AE • Measurement terminal: S terminal luminance signal output (75 Ω termination) • Address: "0002" AE_CVT • Measuring instrument: Oscilloscope (horizontal cycle) • Object: Grey scale • Data changing range: "0000" to "00FE"	1) Establish the normal mode (by writing data " FF" at address "0000". 2) While shooting the gray scale normally, observe the video output using the oscilloscope. Check that the white luminance signal level is 705±10mVp-p and that the gray luminance signal level (on the gray scale background) to 330±10mVp-p.  100mV/div

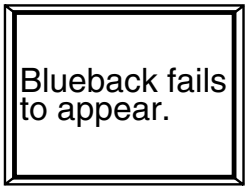
11. USEFUL TIPS (PROBLEMS DIFFER FROM THOSE FOUND ON VHS OR 8MM DECKS BECAUSE THE SIGNALS ARE DIGITALLY PROCESSED.)

Camera (EE mode)



Major circuits to be checked
- CCD
- Camera circuits (CDS/ADC, CAM ENGINE)
- MECHA/SYSTEM MiCON (IC701)
- VIDEO I/O (IC1401)
- VIO ENGINE (IC4401)

VCR (EE mode)

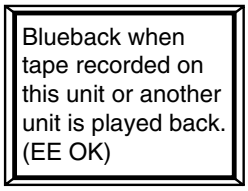


Major circuits to be checked
- MECHA/SYSTEM MiCON (IC701)
- CAM ENGINE (IC201)
- REC/PB ENGINE (IC452)

Camera (REC mode)
VCR (PB mode)

Major circuits to be checked
- CAM ENGINE (IC201)
- REC/PB ENGINE (IC452)

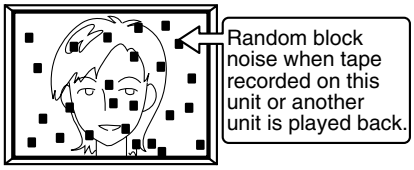
Camera (REC mode)
VCR (PB mode)



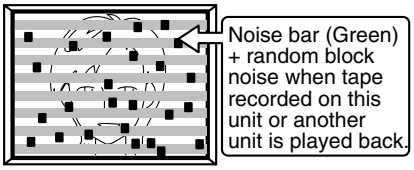
Major circuits to be checked
- EQ/PLL (IC3401)
- Head amplifier (IC301)

* Dirty or defective video head

Camera (REC mode)
VCR (PB mode)



or



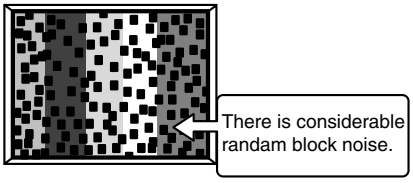
Major circuits to be checked
- EQ/PLL (IC3401)
- Head amplifier (IC301)

* Dirty or defective video head

VCR (PB mode) + color bar

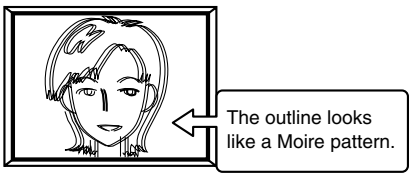
Major circuits to be checked
- CAM ENGINE (IC201)

VCR (PB mode) + color bar



Major circuits to be checked
- Adjustment of the electromagnetic conversion circuit system.

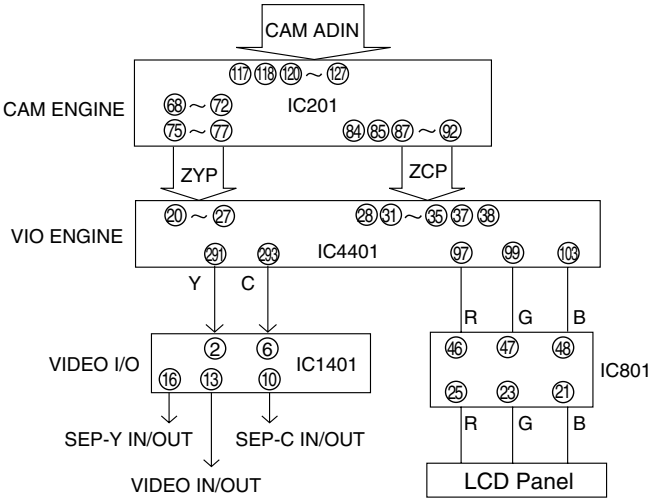
Camera (EE mode)



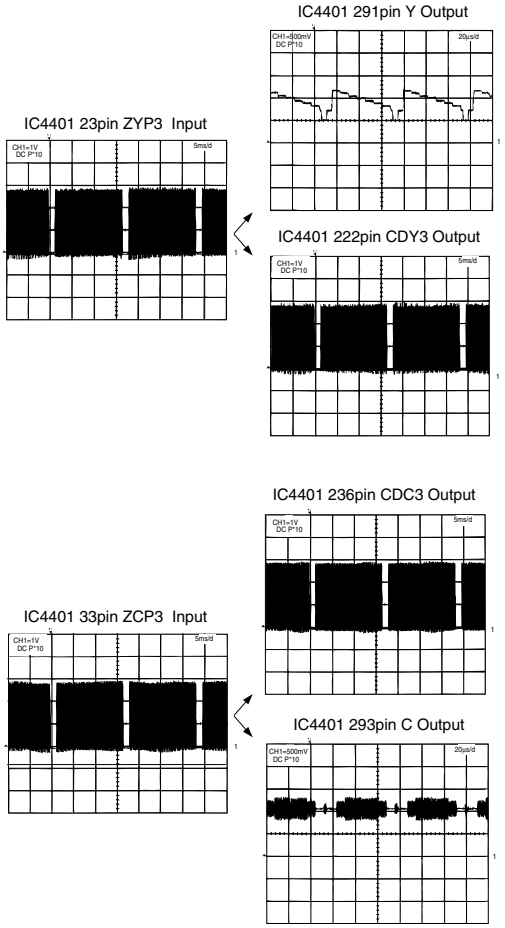
Major circuits to be checked
- Y data between CAM ENGINE (IC201) and VIO ENGINE (IC4401) is missing.

12. SIGNAL FLOW DIAGRAMS

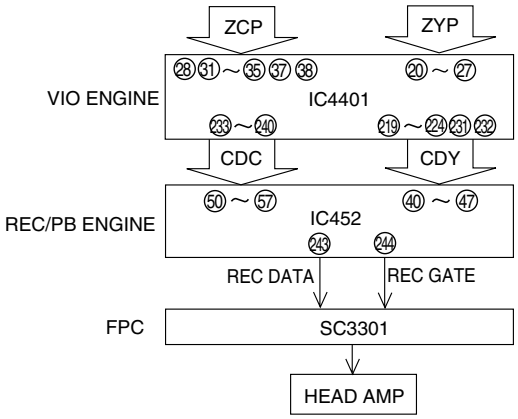
12-1. EE MODE FLOW (VIDEO)



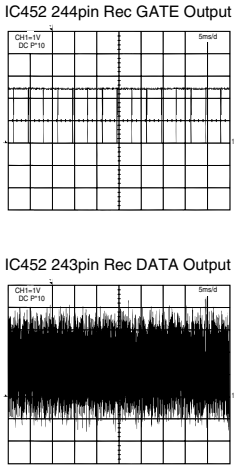
WAVEFORM DIAGRAM (DURING COLOR BAR RECORDING)


IC4401 291pin Y Output
IC4401 23pin ZYP3 Input
IC4401 222pin CDY3 Output
IC4401 236pin CDC3 Output
IC4401 33pin ZCP3 Input
IC4401 293pin C Output

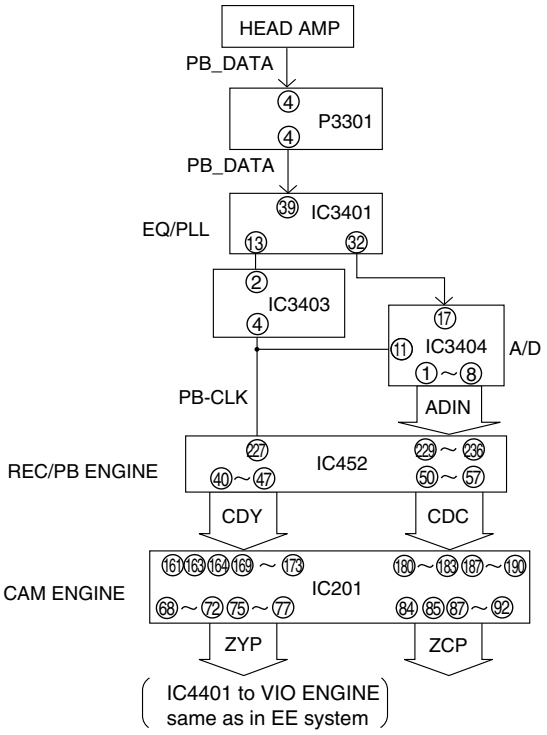
12-2. FLOW IN REC MODE (VIDEO)



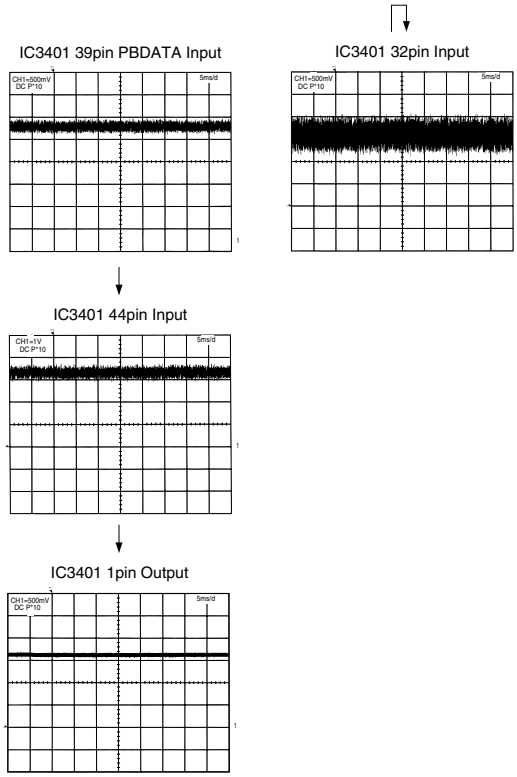
WAVEFORM DIAGRAM (DURING COLOR BAR RECORDING)



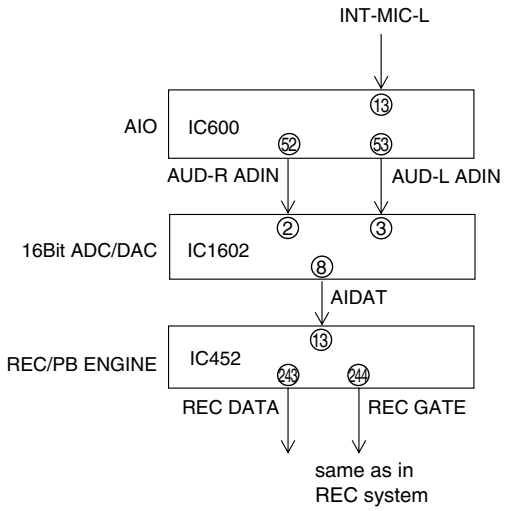
12-3. FLOW IN PB MODE (VIDEO)



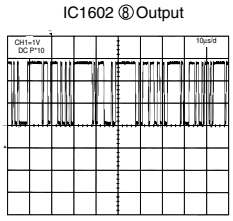
WAVEFORM DIAGRAM (DURING COLOR BAR PLAYBACK)



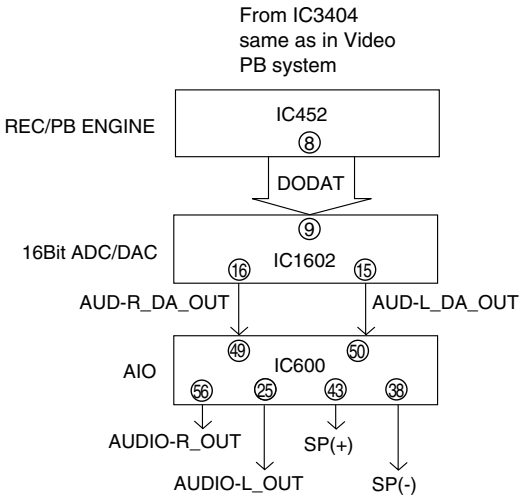
12-4. FLOW IN REC MODE (AUDIO)



WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

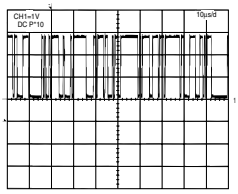


12-5. FLOW IN PB MODE (AUDIO)



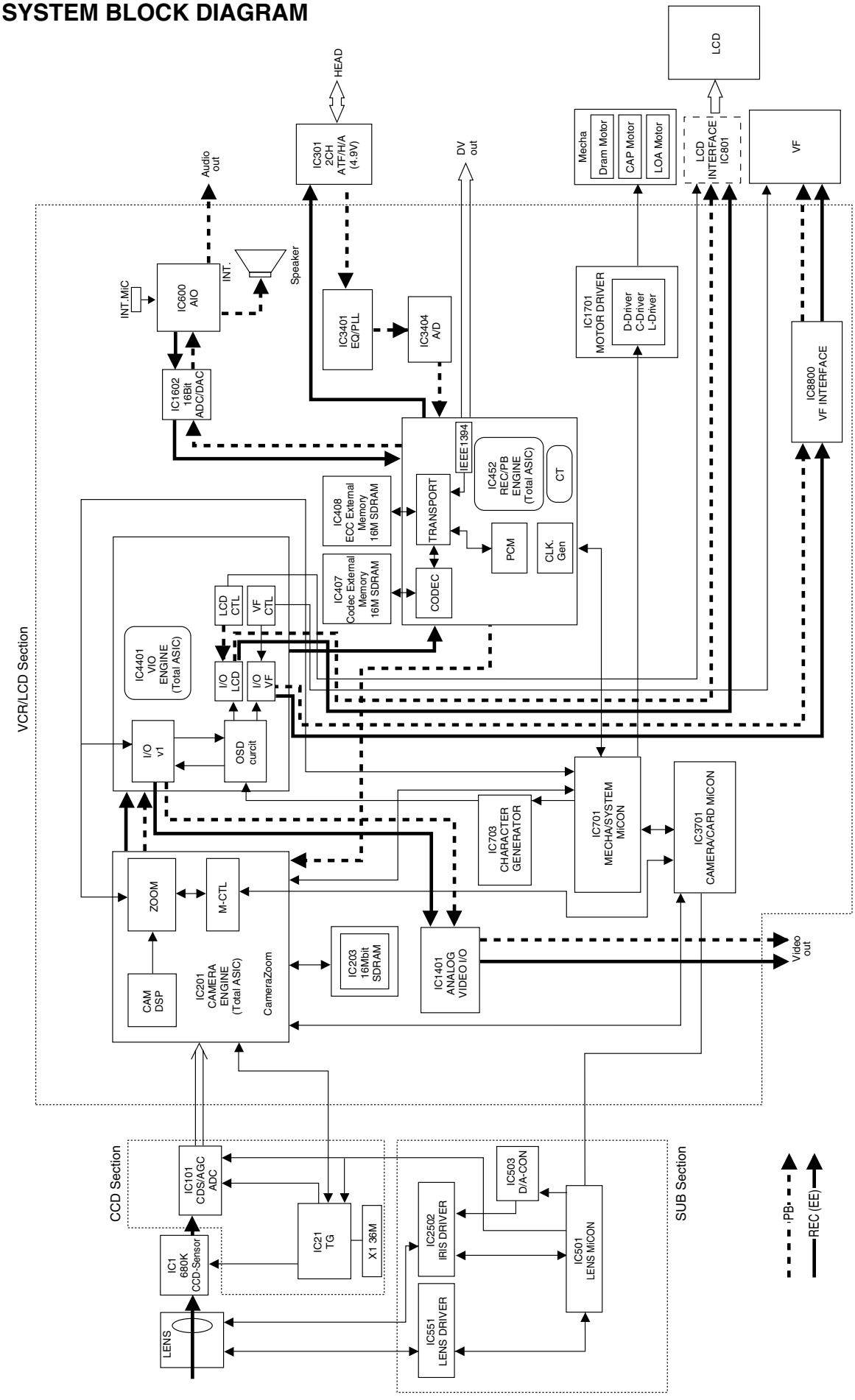
WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)

IC1602 ⑨ DODAT Input

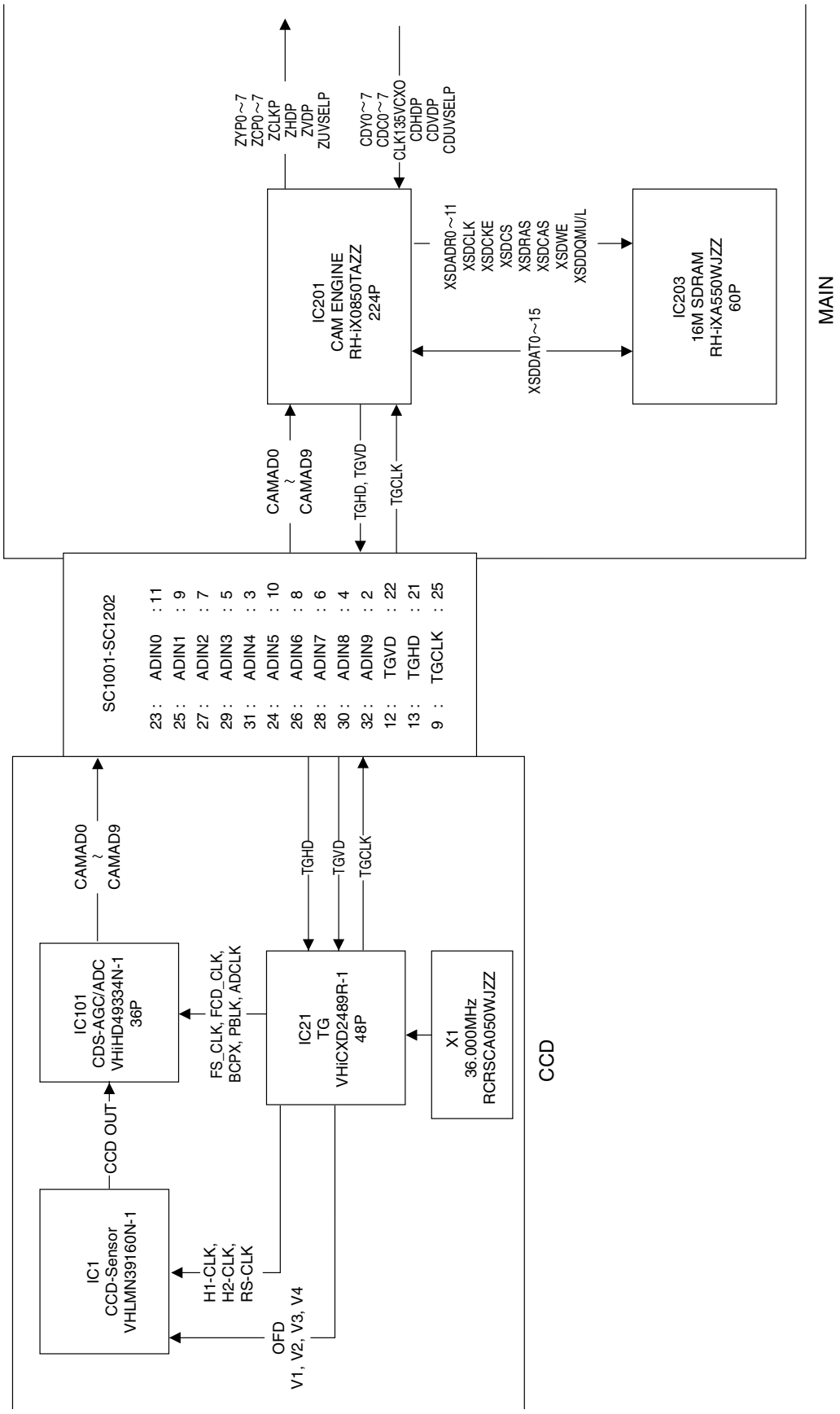


13. BLOCK DIAGRAMS

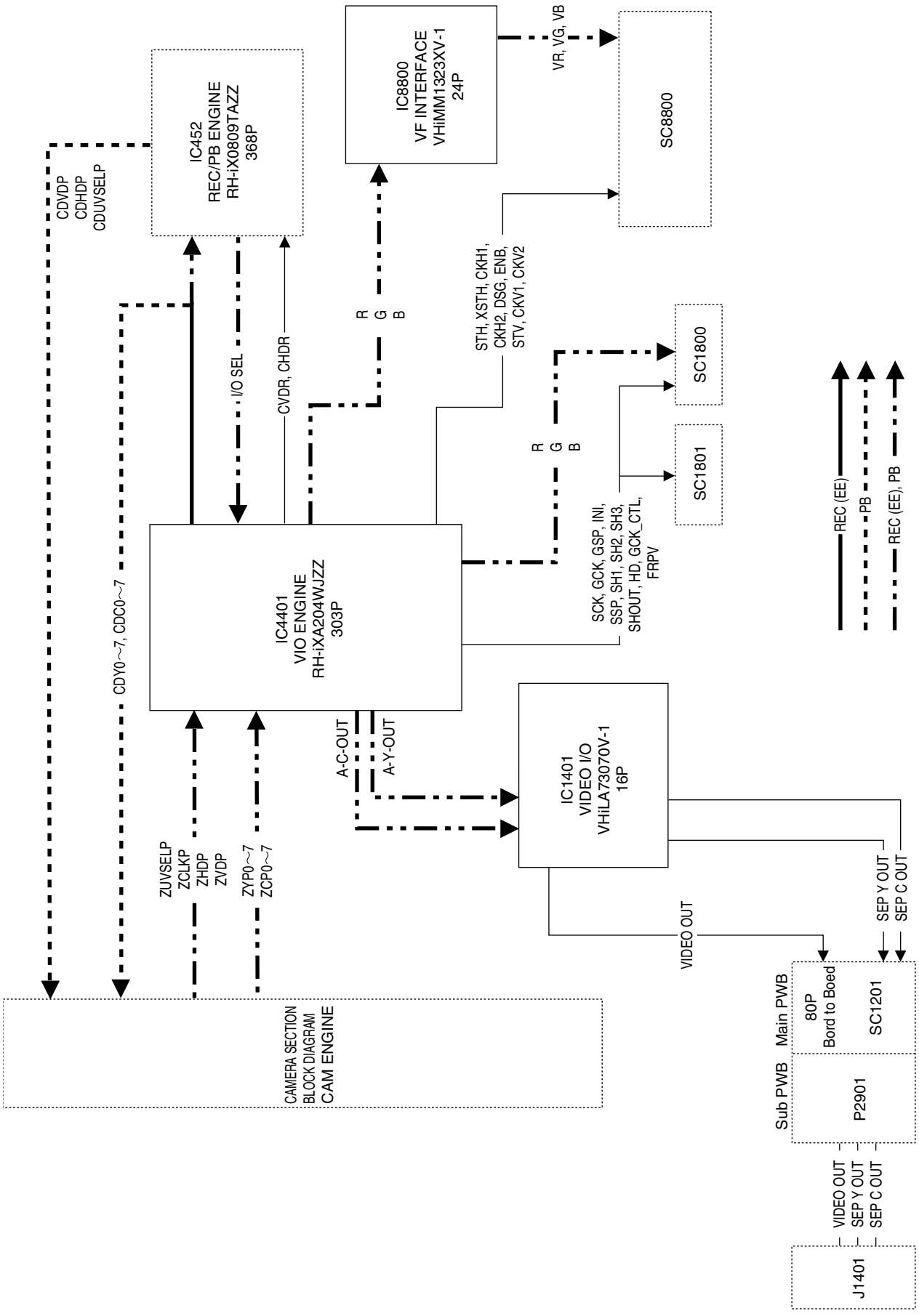
13-1. SYSTEM BLOCK DIAGRAM



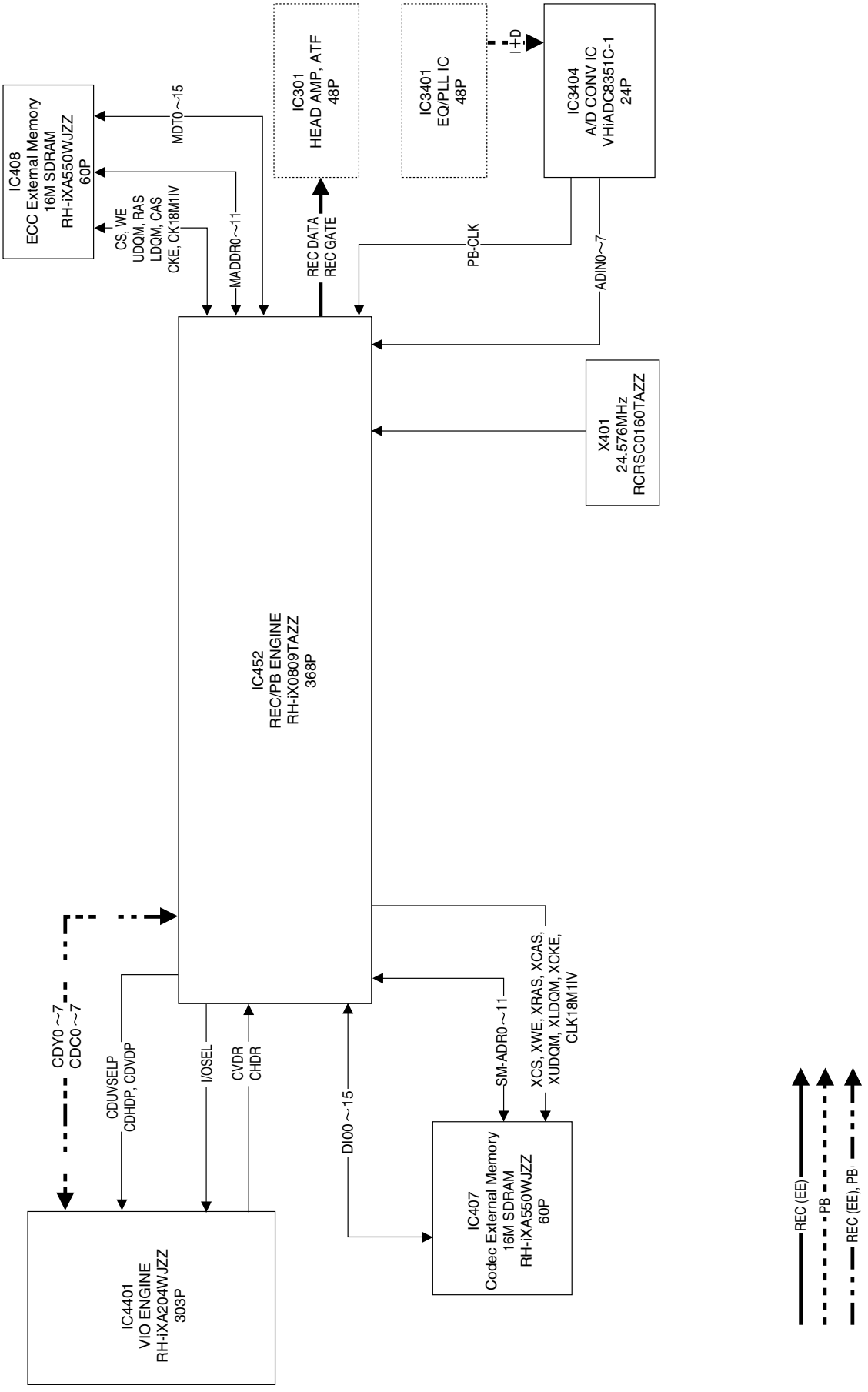
13-2. CAMERA SECTION BLOCK DIAGRAM



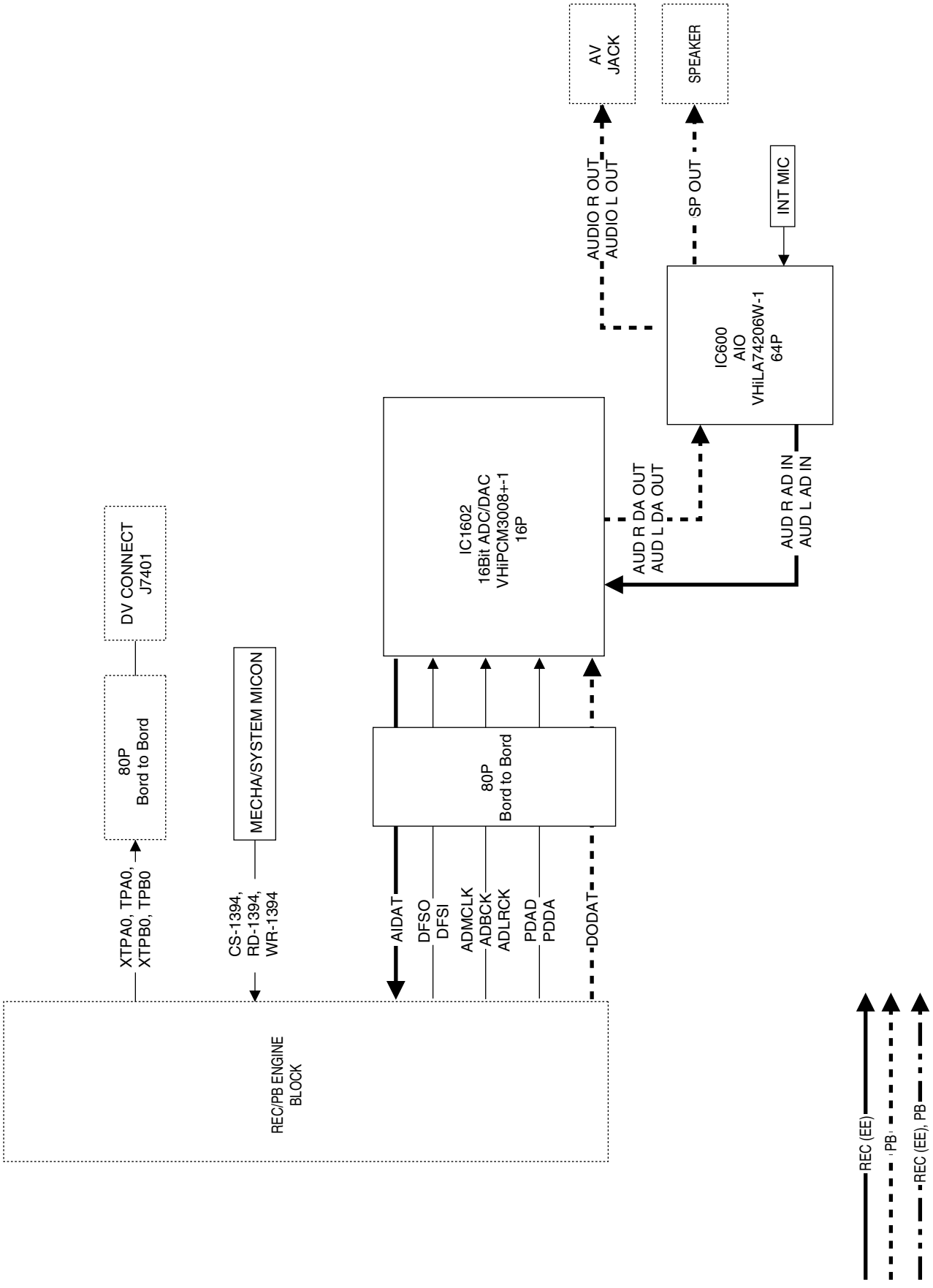
13-3. VIO ENGINE SECTION BLOCK DIAGRAM



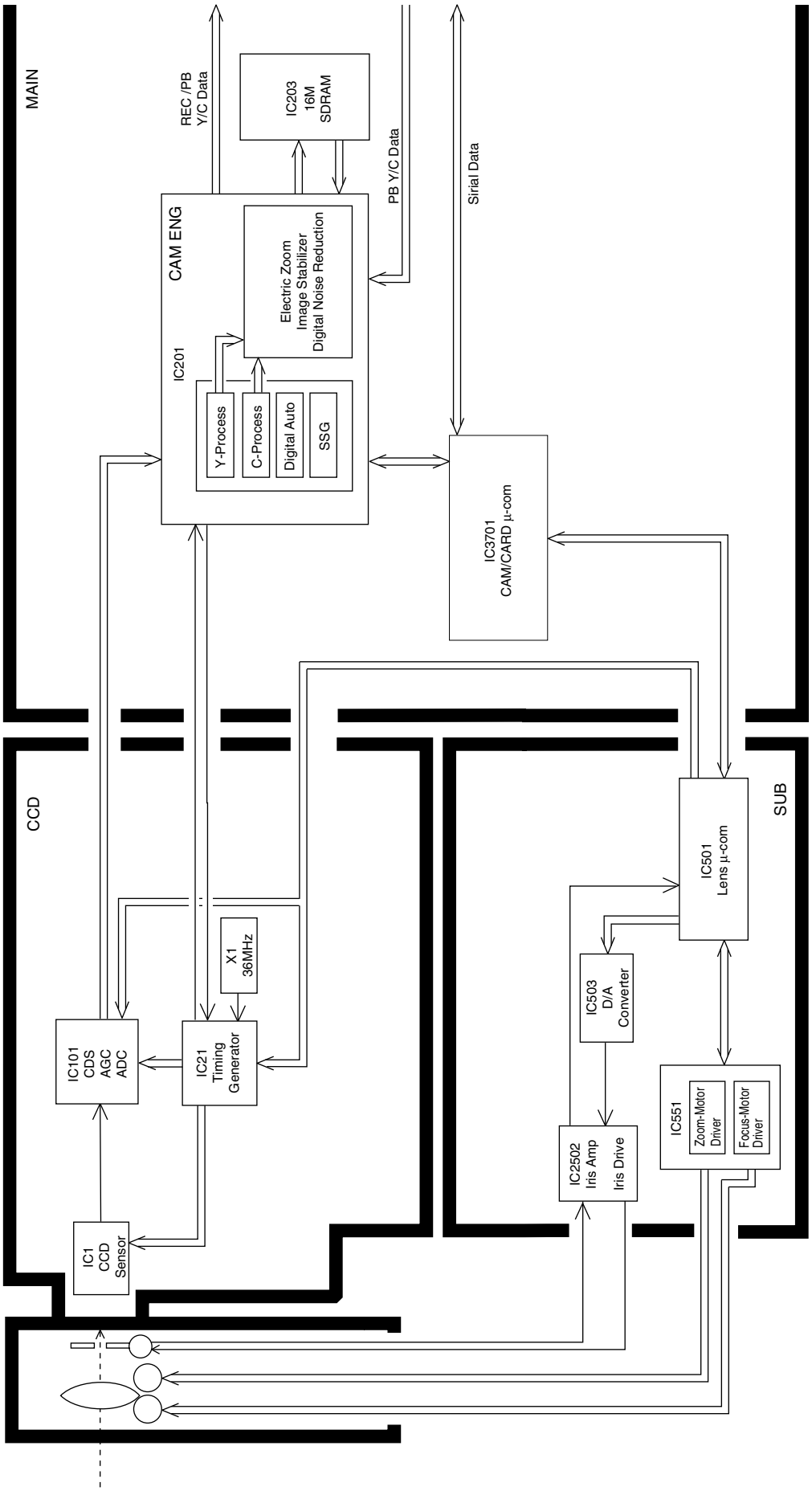
13-4. REC/PB SECTION BLOCK DIAGRAM



13-5. AUDIO/DIGITAL OUTPUT SECTION BLOCK DIAGRAM



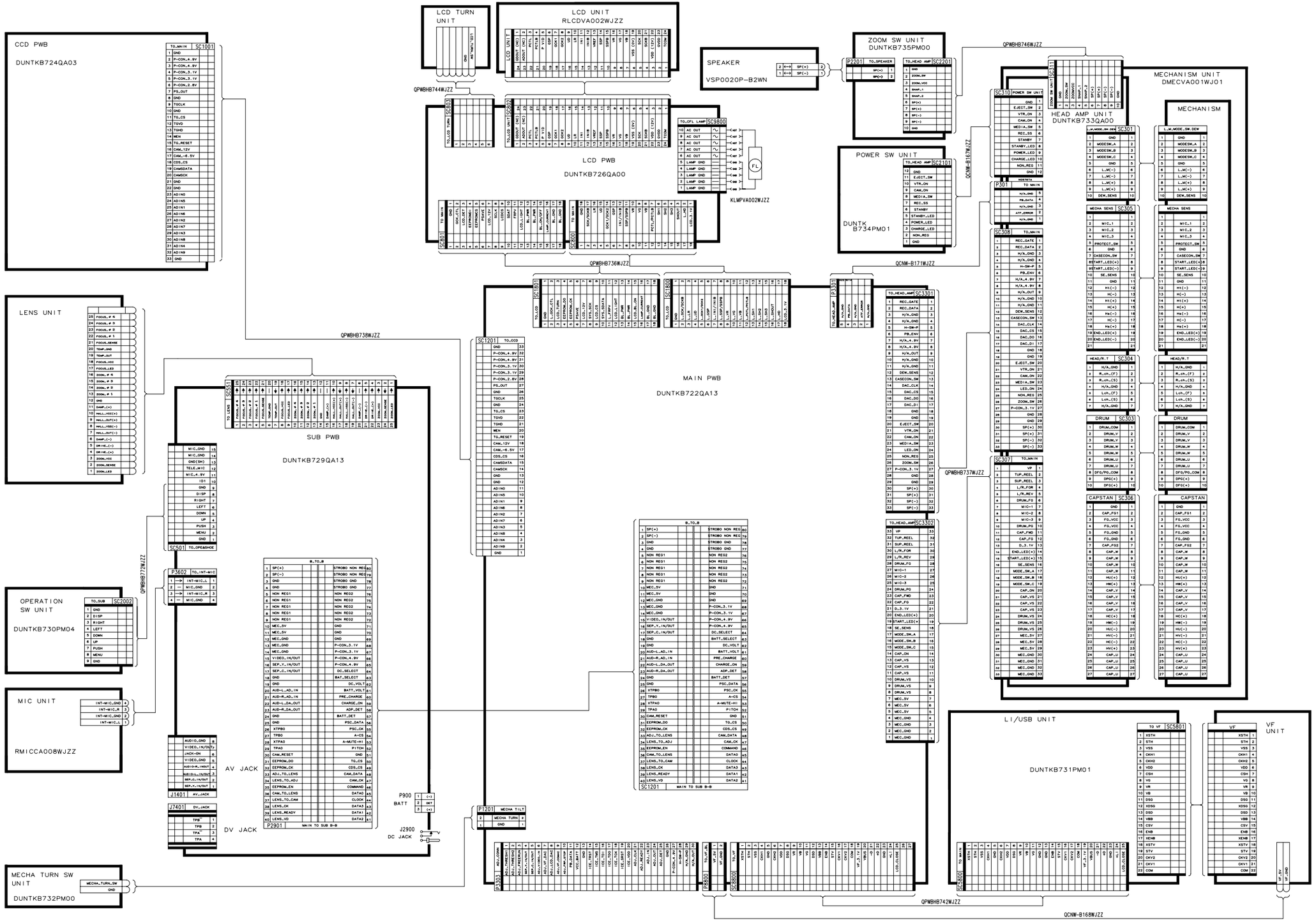
13-6. CAMERA CIRCUIT BLOCK DIAGRAM



- M E M O -

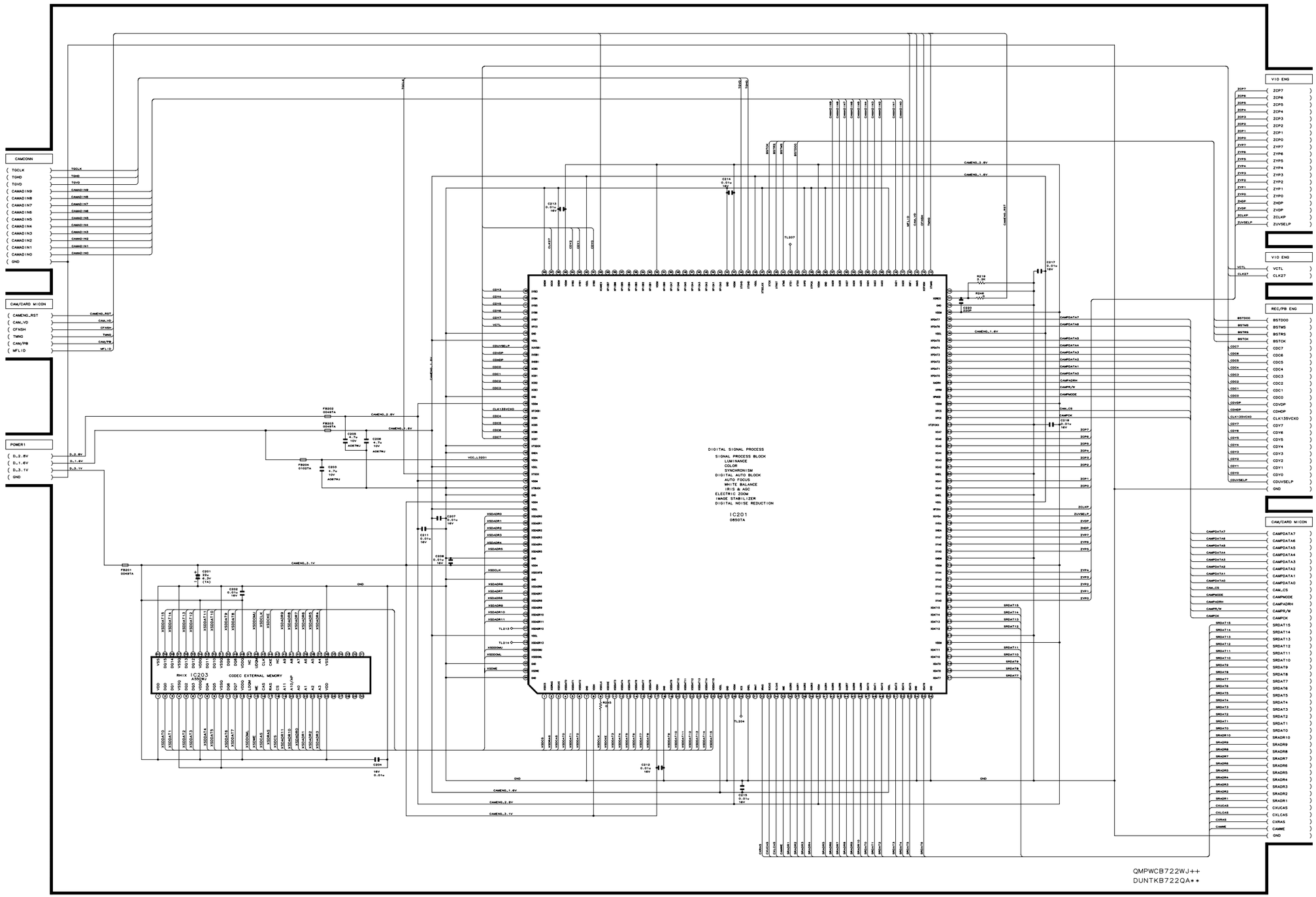
VL-Z1U

14. SCHEMATIC DIAGRAMS 14-1. OVERALL SCHEMATIC DIAGRAM



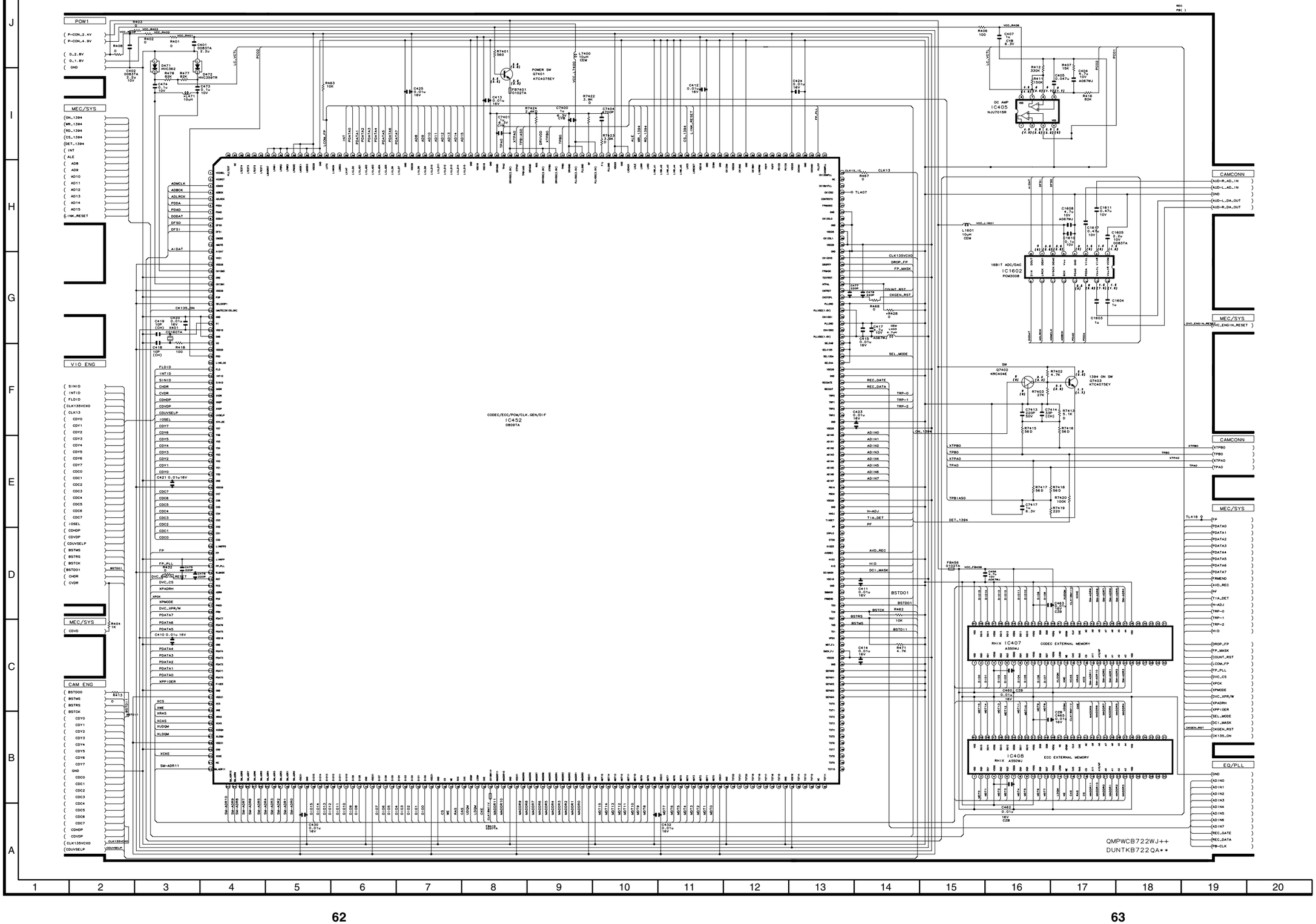
VL-Z1U

14-2. CAMERA ENGINE SCHEMATIC DIAGRAM



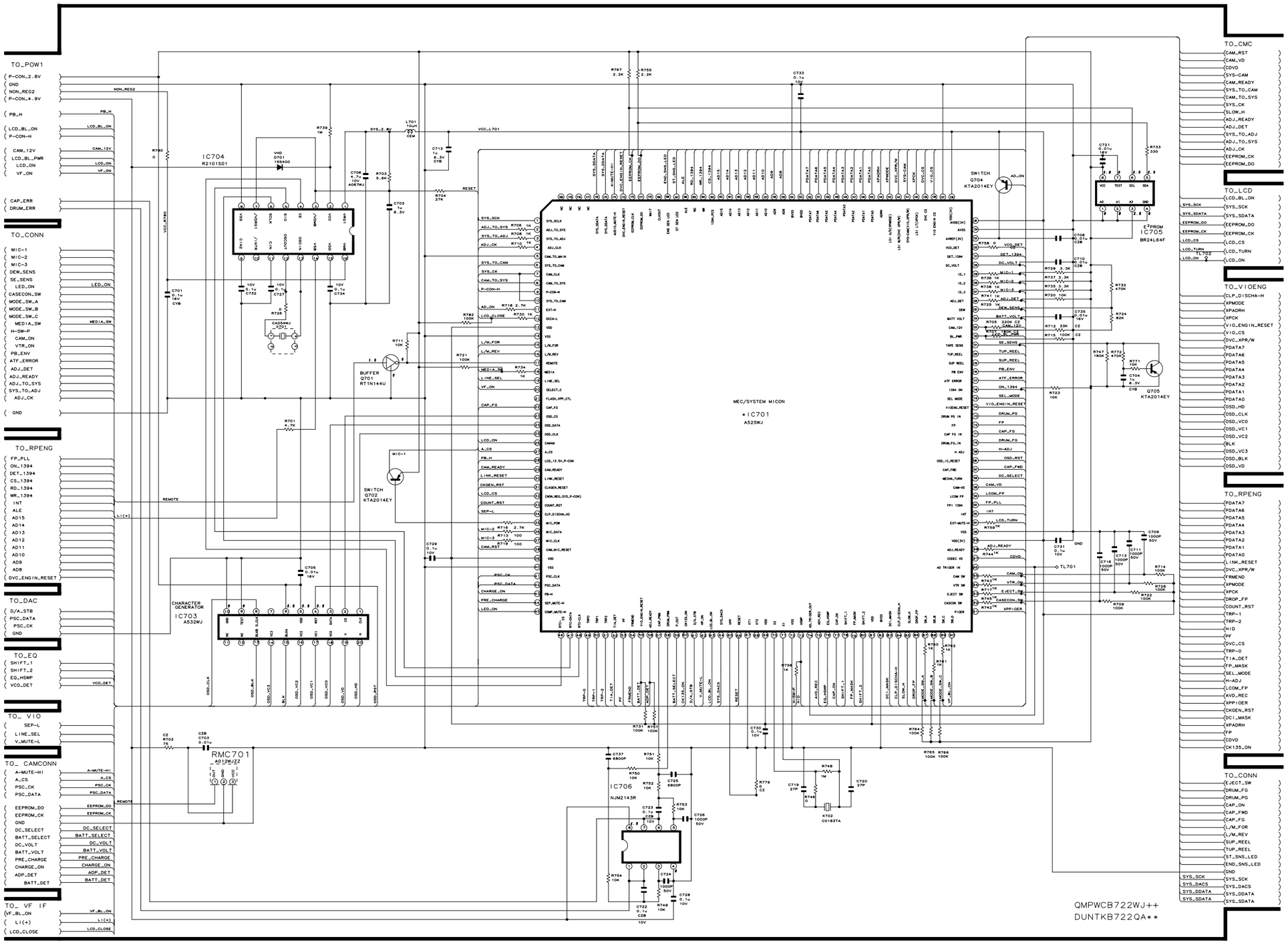
VL-Z1U

14-3. REC/PB ENGINE SCHEMATIC DIAGRAM



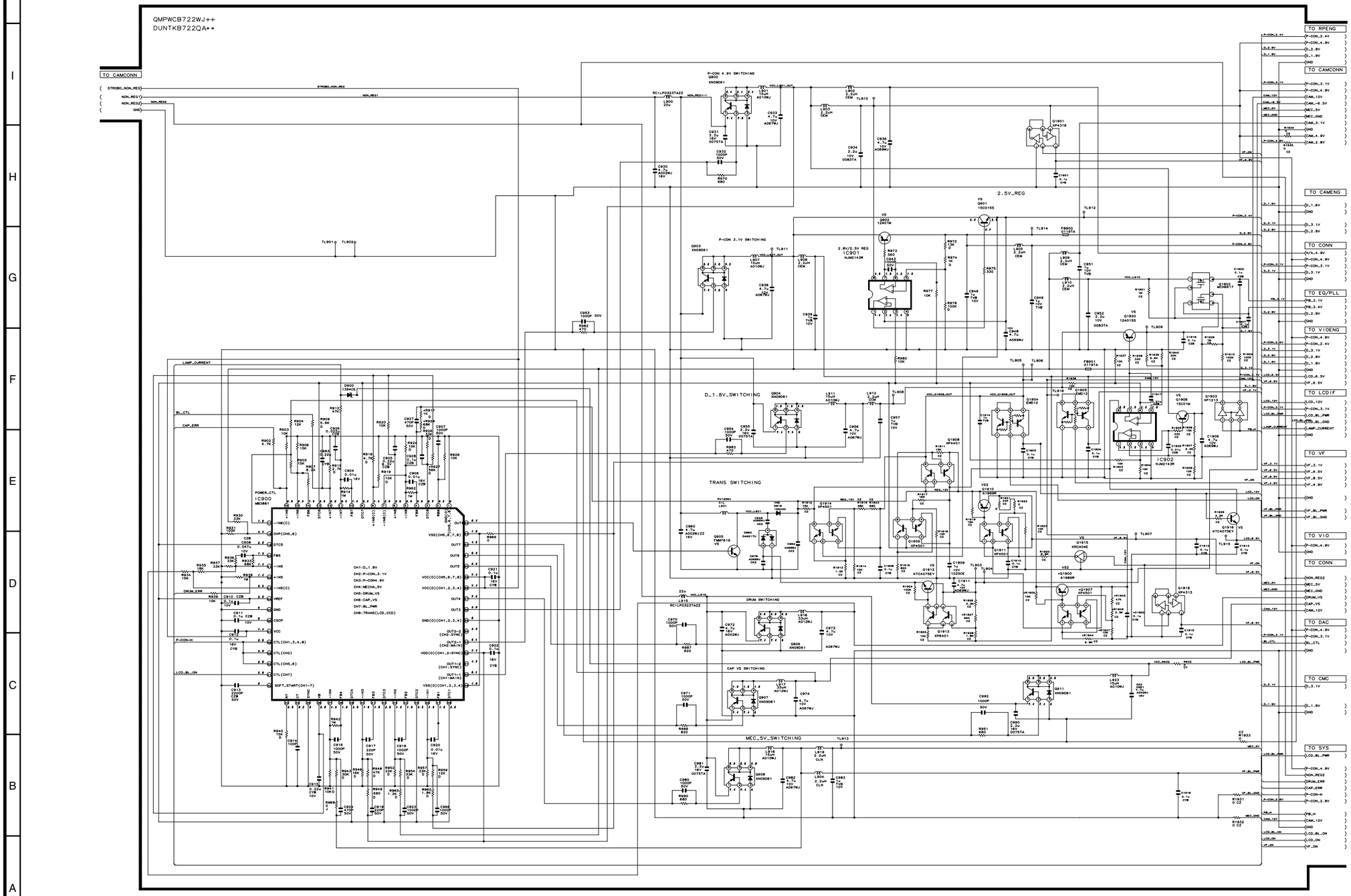
VL-Z1U

14-4. MEC/SYS MiCON SCHEMATIC DIAGRAM



VL-Z1U

14-5. POWER1 SCHEMATIC DIAGRAM



VL-Z1U

14-6. CAMERA CONN SCHEMATIC DIAGRAM

QMPWCB722WJ++
DUNTKB722QA**

P1201
N02767A PLG
MECHA TILT
2 MECHA TURN 2
1 GND 1
TL1205

POW1
NON_REG1
NON_REG2
STROBO_NON_REG
GND

SYS
PSC_DATA
PSC_CK
A_CS
A-MUTE-HI
MECHA_TURN
PRE_CHARGE
CHARGE_ON
ADP_DET
DC_VOLT
DC_SELECT
BATT_DET
BATT_VOLT
BATT_SELECT
EEPROM_DO
EEPROM_CK
GND

VIO
GND
VIDEO_IN/OUT
SEP_C_IN/OUT
SEP_Y_IN/OUT
GND

RPENG
AUD-L_AD_IN
AUD-R_AD_IN
AUD-L_DA_OUT
AUD-R_DA_OUT
XTPB0
TPB0
XTPA0
TPA0
GND

POWER1
P-CON_3.1V
P-CON_4.9V
CAM_12V
CAM_-6.5V
CAM_2.8V
CAM_4.9V
CAM_3.1V
MEC_5V
GND
MEC_GND

B_TO_B

SP(+)	1	SP(+)	STROBO NON REG	80	STROBO_NON_REG
SP(-)	2	SP(-)	STROBO NON REG	79	
GND	3	GND		78	
	4	GND		77	
	5	NON REG1	NON REG2	76	NON_REG2
	6	NON REG1	NON REG2	75	
	7	NON REG1	NON REG2	74	
	8	NON REG1	NON REG2	73	
	9	NON REG1	NON REG2	72	
MEC_5V	10	MEC_5V	GND	71	
	11	MEC_5V	GND	70	
MEC_GND	12	MEC_GND	GND	69	
	13	MEC_GND	P-CON_3.1V	68	P-CON_3.1V
	14	MEC_GND	P-CON_3.1V	67	
VIDEO_IN/OUT	15	VIDEO_IN/OUT	P-CON_4.9V	66	P-CON_4.9V
SEP_Y_IN/OUT	16	SEP_Y_IN/OUT	P-CON_4.9V	65	
SEP_C_IN/OUT	17	SEP_C_IN/OUT	DC_SELECT	64	DC_SELECT
	18	GND	BATT_SELECT	63	BATT_SELECT
	19	GND	DC_VOLT	62	DC_VOLT
AUD-L_AD_IN	20	AUD-L_AD_IN	BATT_VOLT	61	BATT_VOLT
AUD-R_AD_IN	21	AUD-R_AD_IN	PRE_CHARGE	60	PRE_CHARGE
AUD-L_DA_OUT	22	AUD-L_DA_OUT	CHARGE_ON	59	CHARGE_ON
AUD-R_DA_OUT	23	AUD-R_DA_OUT	ADP_DET	58	ADP_DET
	24	GND	BATT_DET	57	BATT_DET
	25	GND	PSC_DATA	56	PSC_DATA
XTPB0	26	XTPB0	PSC_CK	55	PSC_CK
TPB0	27	TPB0	A-CS	54	A_CS
XTPA0	28	XTPA0	A-MUTE-HI	53	A-MUTE-HI
TPA0	29	TPA0	PITCH	52	PS_OUT
CAM_RST	30	CAM_RESET	GND	51	
EEPROM_DO	31	EEPROM_DO	TG_CS	50	TG_CS
EEPROM_CK	32	EEPROM_CK	CDS_CS	49	CDS_CS
ADJ_TO_SYS	33	ADJ_TO_LENS	CAM_DATA	48	CAM_SDATA
SYS_TO_ADJ	34	LENS_TO_ADJ	CAM_CK	47	CAM_SCK
EEPROM_EN	35	EEPROM_EN	COMMAND	46	SD_COMMAND
CAM_TO_LENS	36	CAM_TO_LENS	DATA0	45	SD_DATA0
LENS_TO_CAM	37	LENS_TO_CAM	CLOCK	44	SD_CLOCK
LENS_CK	38	LENS_CK	DATA3	43	SD_DATA3
LENS_READY	39	LENS_READY	DATA1	42	SD_DATA1
LENS_VD	40	LENS_VD	DATA2	41	SD_DATA2

TO_HEAD_AMP_FPC
W8089TA
SC1201

C2
R1993
1.5K

	GND	33	GND
	P-CON_4.9V	32	CAM_4.9V
	P-CON_4.9V	31	TL1201 CAM_3.1V
	P-CON_3.1V	30	
	P-CON_3.1V	29	TL1202 CAM_2.8V
	P-CON_2.8V	28	
	PS_OUT	27	PS_OUT
	GND	26	TL1203
	TGCLK	25	TL1204 TGCLK
	GND	24	
	TG_CS	23	TG_CS
	TGVD	22	TGVD
	TGHD	21	TGHD
	WEN	20	TL1213 WEN
	TG_RESET	19	TG_RESET
	CAM_12V	18	CAM_12V
	CAM_-6.5V	17	CAM_-6.5V
	CDS_CS	16	CDS_CS
	CAMSDATA	15	CAM_SDATA
	CAMSCK	14	CAM_SCK
	GND	13	
	GND	12	
	ADIN0	11	CAMADIN0
	ADIN5	10	CAMADIN5
	ADIN1	9	CAMADIN1
	ADIN6	8	CAMADIN6
	ADIN2	7	CAMADIN2
	ADIN7	6	CAMADIN7
	ADIN3	5	CAMADIN3
	ADIN8	4	CAMADIN8
	ADIN4	3	CAMADIN4
	ADIN9	2	CAMADIN9
	GND	1	GND

TO_CCD
W3396TA
SC1202

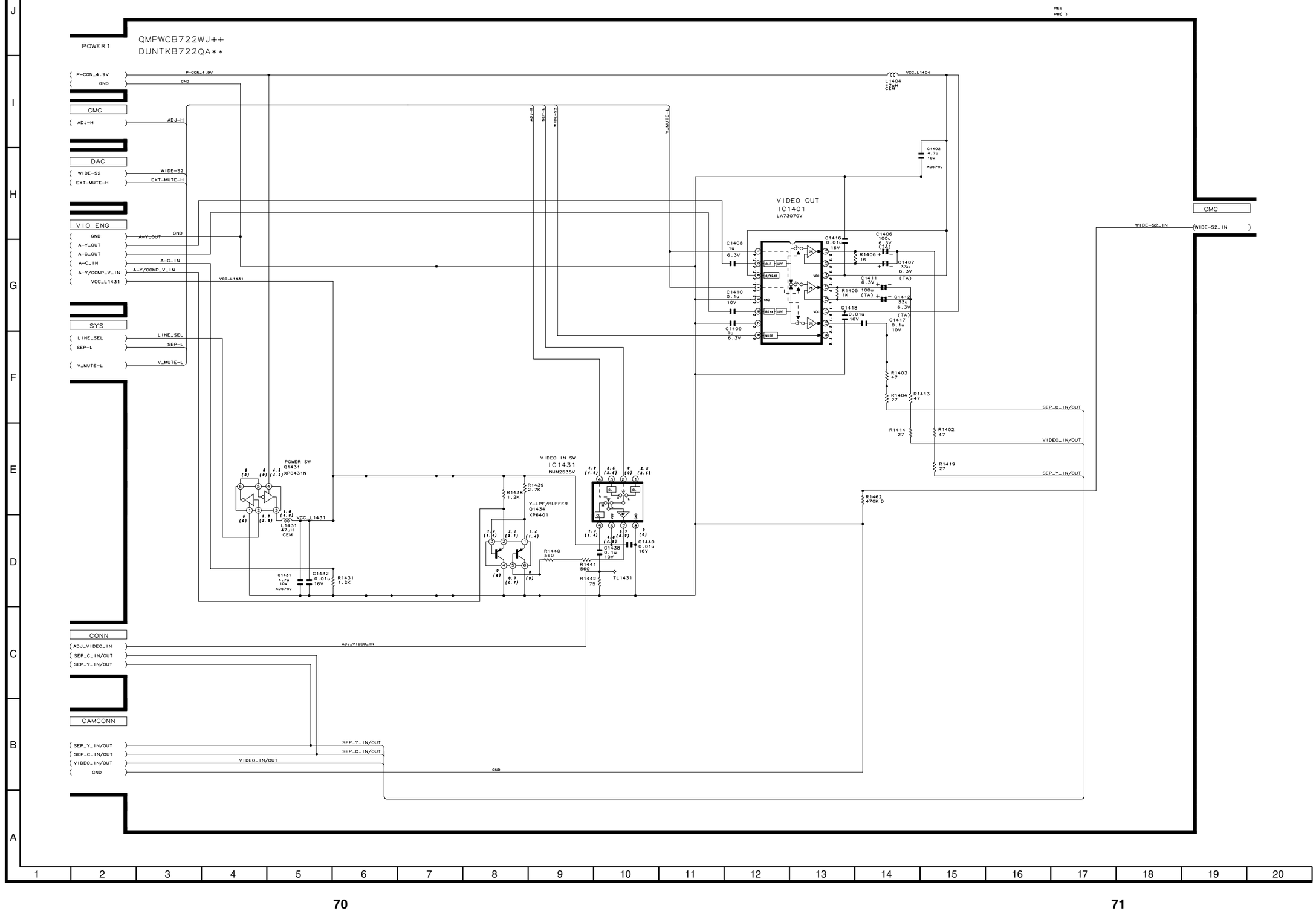
CAM MICON
GND
CAM_RST
EEPROM_EN
LENS_READY
LENS_CK
LENS_TO_CAM
CAM_TO_LENS
LENS_VD
ADJ_TO_SYS
SYS_TO_ADJ
SD_COMMAND
SD_DATA0
SD_CLOCK
SD_DATA3
SD_DATA2
SD_DATA1
WEN
TG_RESET
MECHA_TURN

CAMENG
GND
CAMADIN0
CAMADIN1
CAMADIN2
CAMADIN3
CAMADIN4
CAMADIN5
CAMADIN6
CAMADIN7
CAMADIN8
CAMADIN9
TGHD
TGVD
TGCLK

CONN
SP(+)
SP(-)
STROBO_NON_REG2

VL-Z1U

14-7. VIDEO I/O SCHEMATIC DIAGRAM



VL-Z1U

14-8. LCDIF SCHEMATIC DIAGRAM

QMPWCB722WJ++
DUNTKB722QA**

TO_SYS
LCD_ON
EEPROM_DO
EEPROM_CK
SYS_SDATA
SYS_SCK
LCD_CS
LCD_TURN
LCD_BL_ON

TO_CMC
TEMP_LCD
LCD_LIGHT

TO_VIOENG
L_LR
L_UD
L_GCK1/GCK2
L_GSP
L_INI/INIB
L_SSP/SSPB
L_SCK/SCKB
L_PCTL/PCTLB
L_FRPV
L_SHOUT
L_SH1
L_SH2
L_SH3
L_R_OUT
L_G_OUT
L_B_OUT
L_HD
L_GCK_CTL
GND

TO_POW1
GND
LCD_12V
P-CON_3.1V
LCD_BL_GND
LCD_BL_PWR
LAMP_CURRENT

L_VR
L_VG
L_VB
L_SCK/SCKB

L1800 47uH CEM
C1800 4.7u 10V A067WJ
R1800 33K
R1804 1.2K
R1801 560
C1802 68P (CH)
Q1800 XP6401
R1802 560
C1801 18P (CH)
R1805 33K
R1810 1.2K
R1807 560
C1804 68P (CH)
Q1801 XP6401
R1808 560
C1803 18P (CH)
R1812 33K
R1816 1.2K
R1813 560
C1806 68P (CH)
Q1802 XP6401
R1814 560
C1805 18P (CH)
R1823 220
R1824 0

SC1800
W1895TA
TO_LCD_PANEL

1	GND		1
2	SCK/SCKB		2
3	LR		3
4	UD		4
5	GCK1/GCK2		5
6	GSP		6
7	INI/INIB		7
8	SSP/SSPB		8
9	VR		9
10	VG		10
11	VB		11
12	PCTL/PCTLB		12
13	SH1		13
14	SH2		14
15	SH3		15
16	SHOUT		16
17	L_HD		17
18	LCD_3.1V		18

L_LR
L_UD
L_GCK1/GCK2
L_GSP
L_INI/INIB
L_SSP/SSPB
L_VR
L_VG
L_VB
L_PCTL/PCTLB
L_SH1
L_SH2
L_SH3
L_SHOUT
L_HD

R1827 0 CZ
TH1800 S2103J16-1
C1811 0.01u 16V
R1826 10K D
C1815 0.1u CZB

L1801 4.7u CQM

SC1801
W1894TA

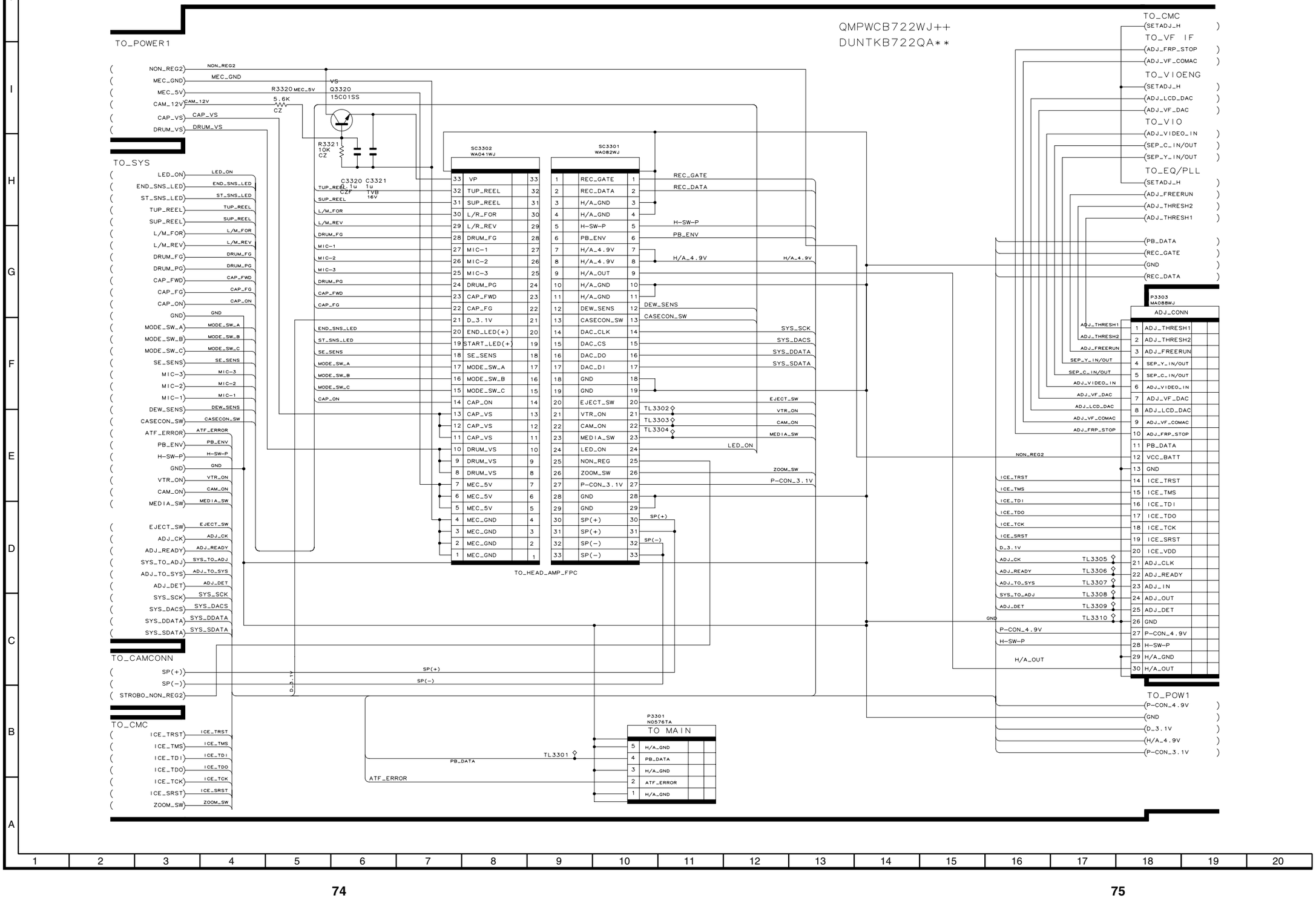
1	GND		1
2	L_VD		2
3	LCD_DET		3
4	EEPROMDI		4
5	EEPROMCS		5
6	PSAVE		6
7	LCD_12V		7
8	SCLK		8
9	LCDCS		9
10	SDAT		10
11	FRPV		11
12	LCD_LIGHT		12
13	BL_PWR		13
14	BL_PWR		14
15	BL_ON/OFF		15
16	LAMP_CURRENT		16
17	BL_GND		17
18	BL_GND		18

L_GCK_CTL
LCD_TURN
EEPROM_DO
EEPROM_CK
LCD_ON
SYS_SCK
LCD_CS
SYS_SDATA
L_FRPV
LCD_LIGHT
LCD_BL_ON
LAMP_CURRENT

TL1800
330 R1825
TL1801
TL1802
TL1803
TL1804
TL1805
TL1806
TL1807

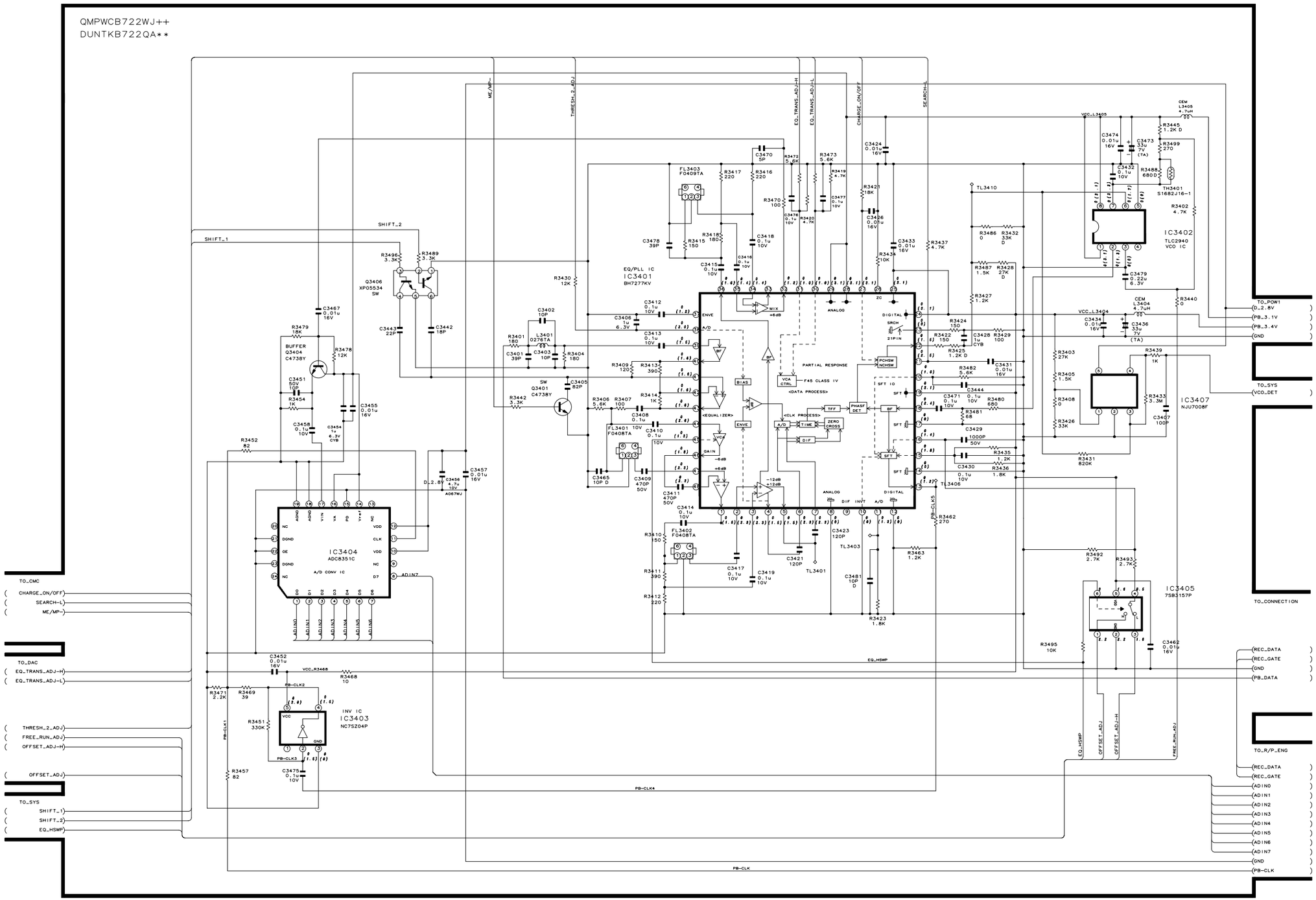
VL-Z1U

14-9. CONNECTION(B-B) SCHEMATIC DIAGRAM



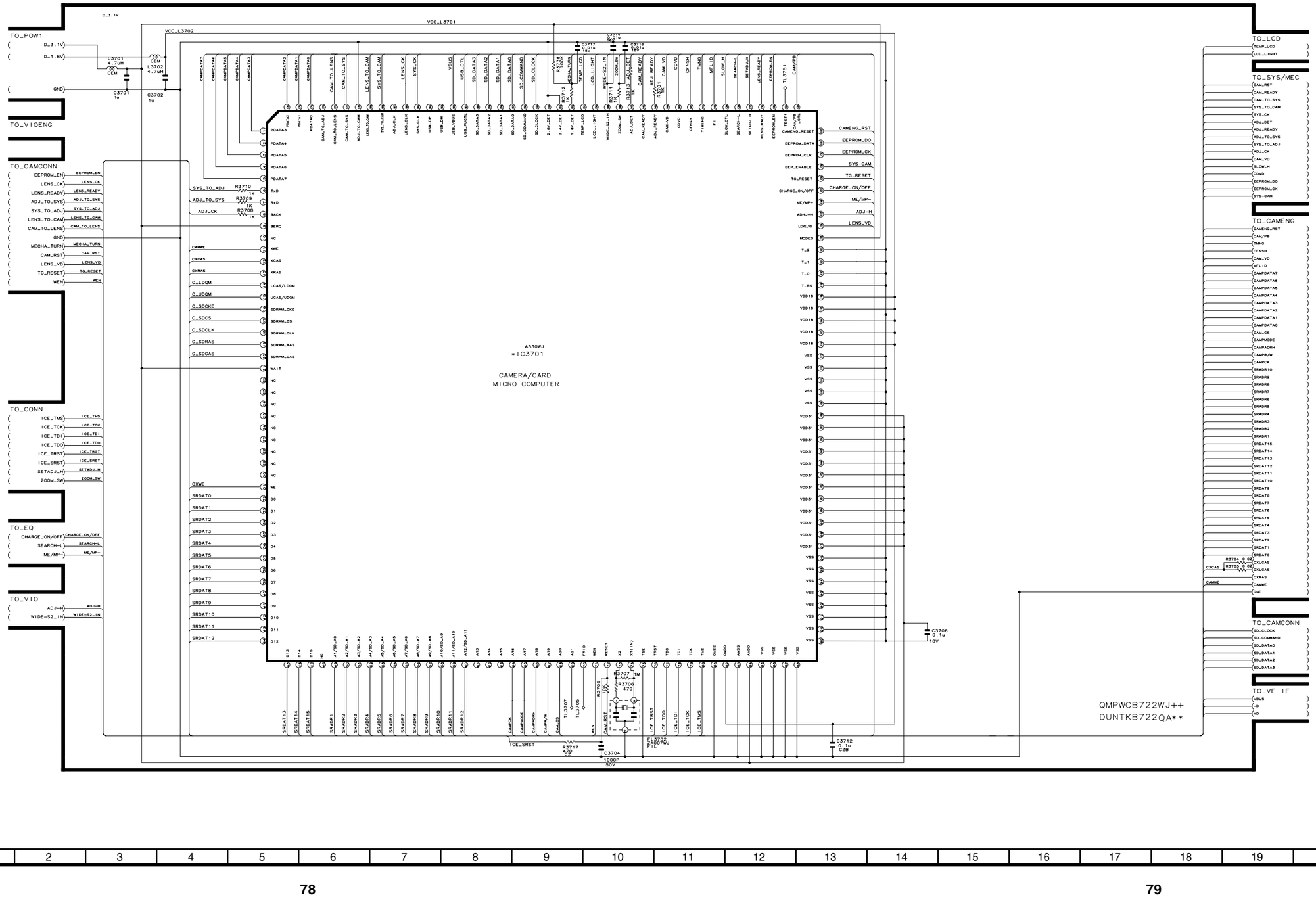
VL-Z1U

14-10. EQ/PLL SCHEMATIC DIAGRAM



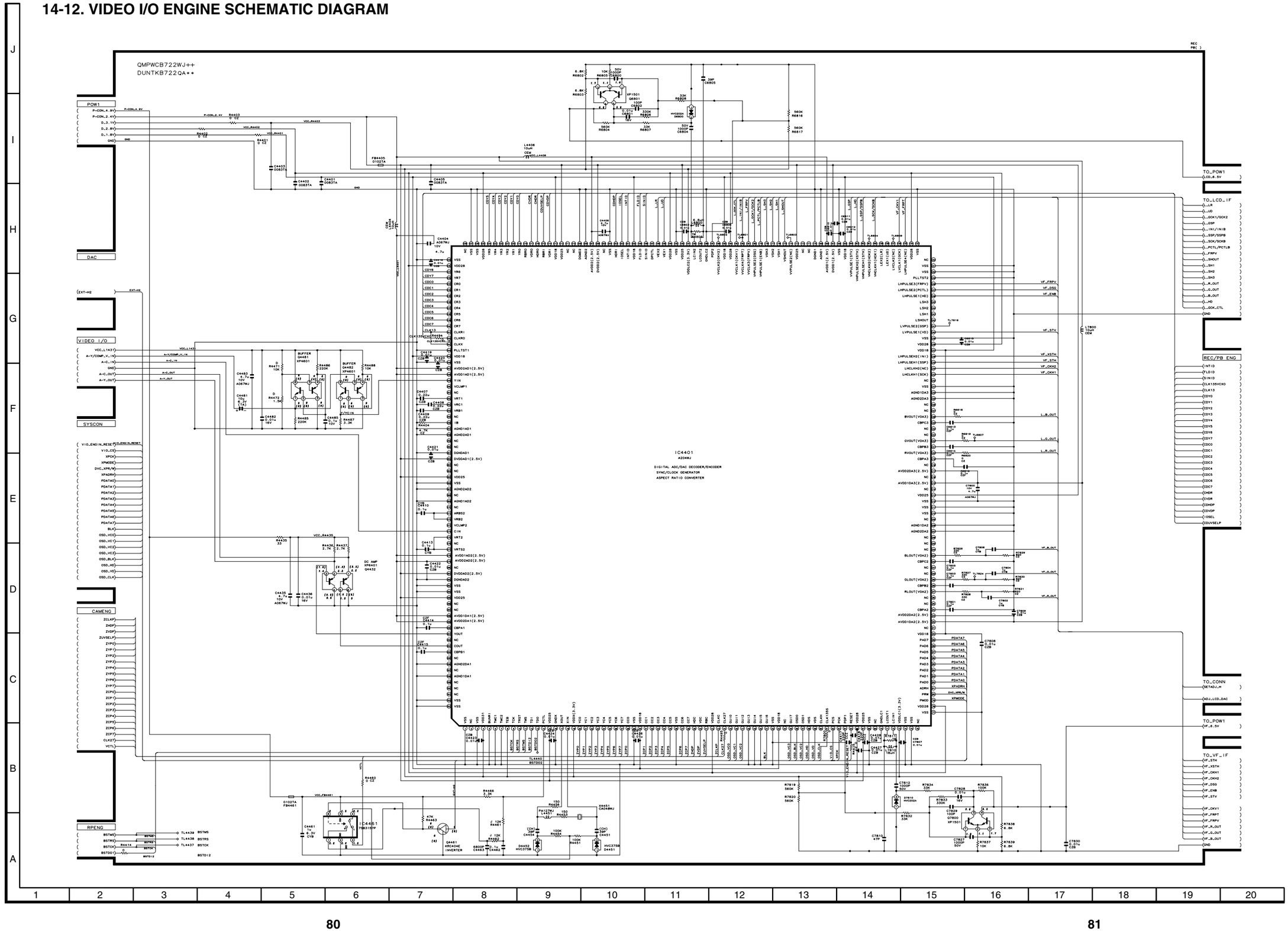
VL-Z1U

14-11. CAM/CARD MiCON SCHEMATIC DIAGRAM



VL-Z1U

14-12. VIDEO I/O ENGINE SCHEMATIC DIAGRAM



VL-Z1U

14-13. DAC SCHEMATIC DIAGRAM

QMPWCB722WJ++
DUNTKB722QA**

IC4701
MB8346BV

C4703
0.1u
10V
CZF

C4702
0.1u
10V
CZF

TO_SYS
PSC_DATA
PSC_CK
D/A_STB
GND

TO_EQ
OFFSET_ADJ
OFFSET_ADJ-H
EQ_TRANS_ADJ-L
FREE_RUN_ADJ
EQ_TRANS_ADJ-H
THRESH_2_ADJ

TO_VF IF
VF_COMAC_ADJ

TO_V10ENG
EXT-H2

TO_V10
WIDE-S2
EXT-MUTE-H

TO_POW1
P-CON_4.9V
P-CON_3.1V
GND
BL_CTL

VL-Z1U

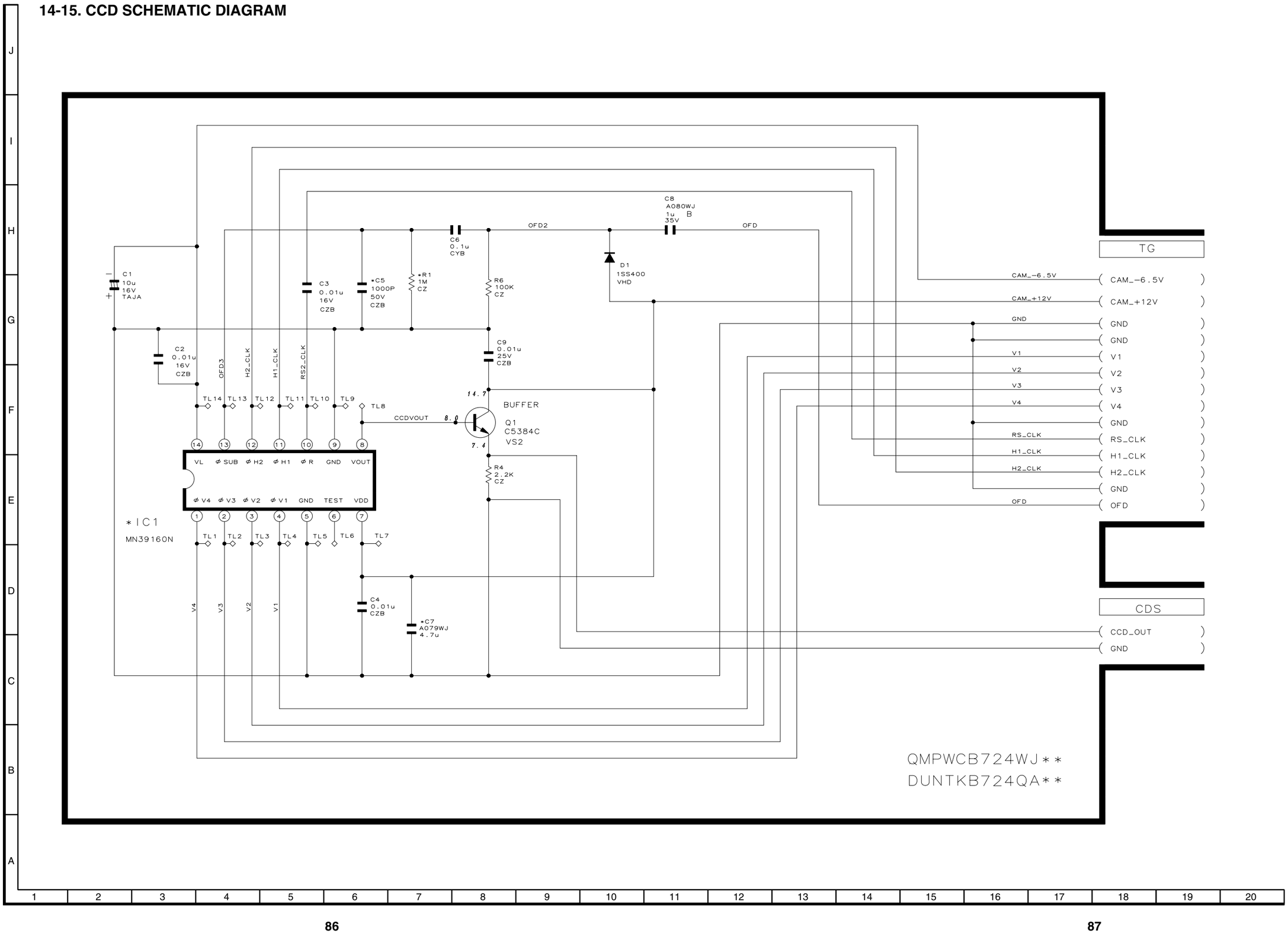
14-14. VFIF SCHEMATIC DIAGRAM

QMPWCB722WJ++
DUNTKB722QA**

VF INTERFACE
IC8800
MM1323XV

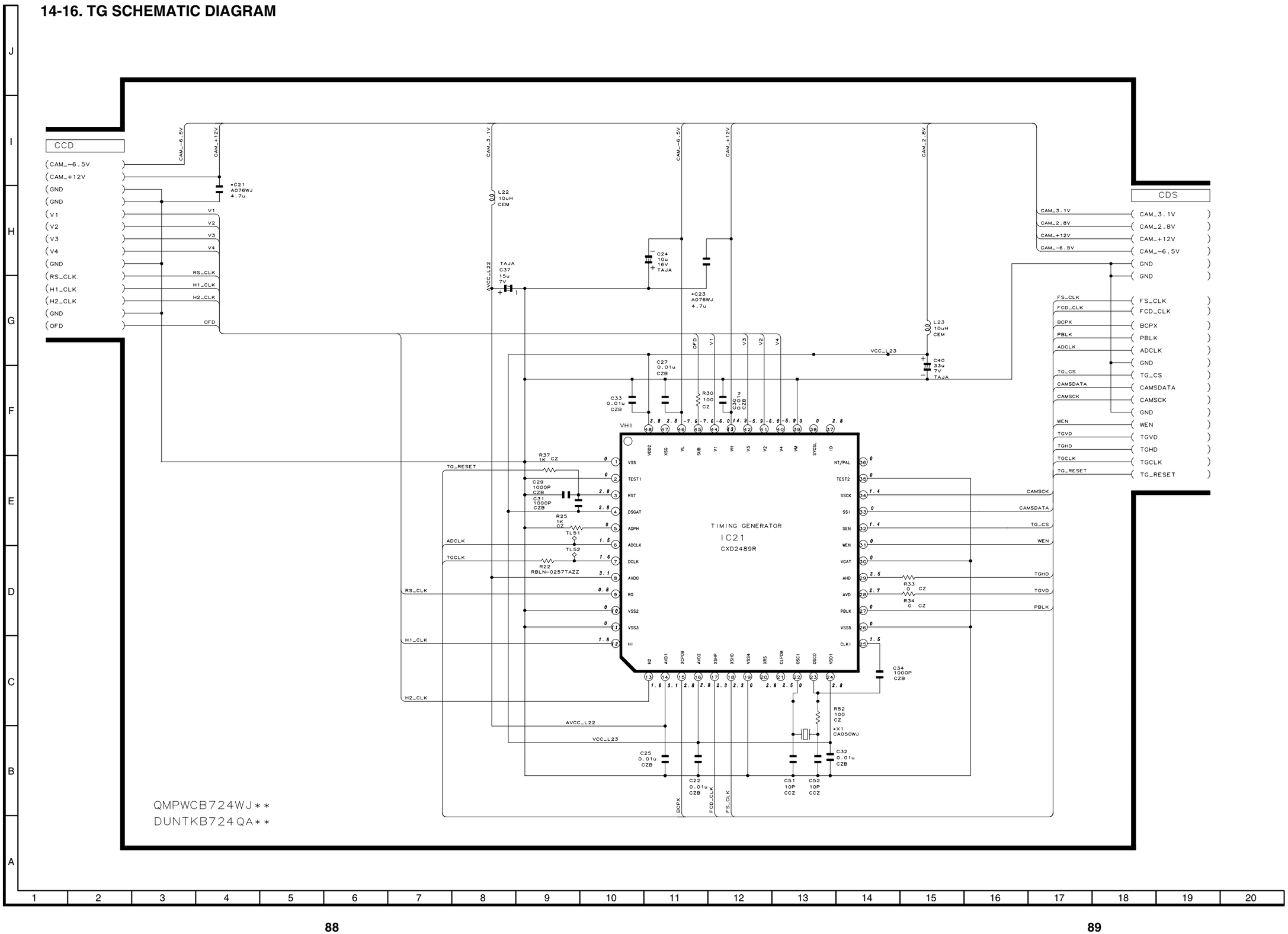
VL-Z1U

14-15. CCD SCHEMATIC DIAGRAM



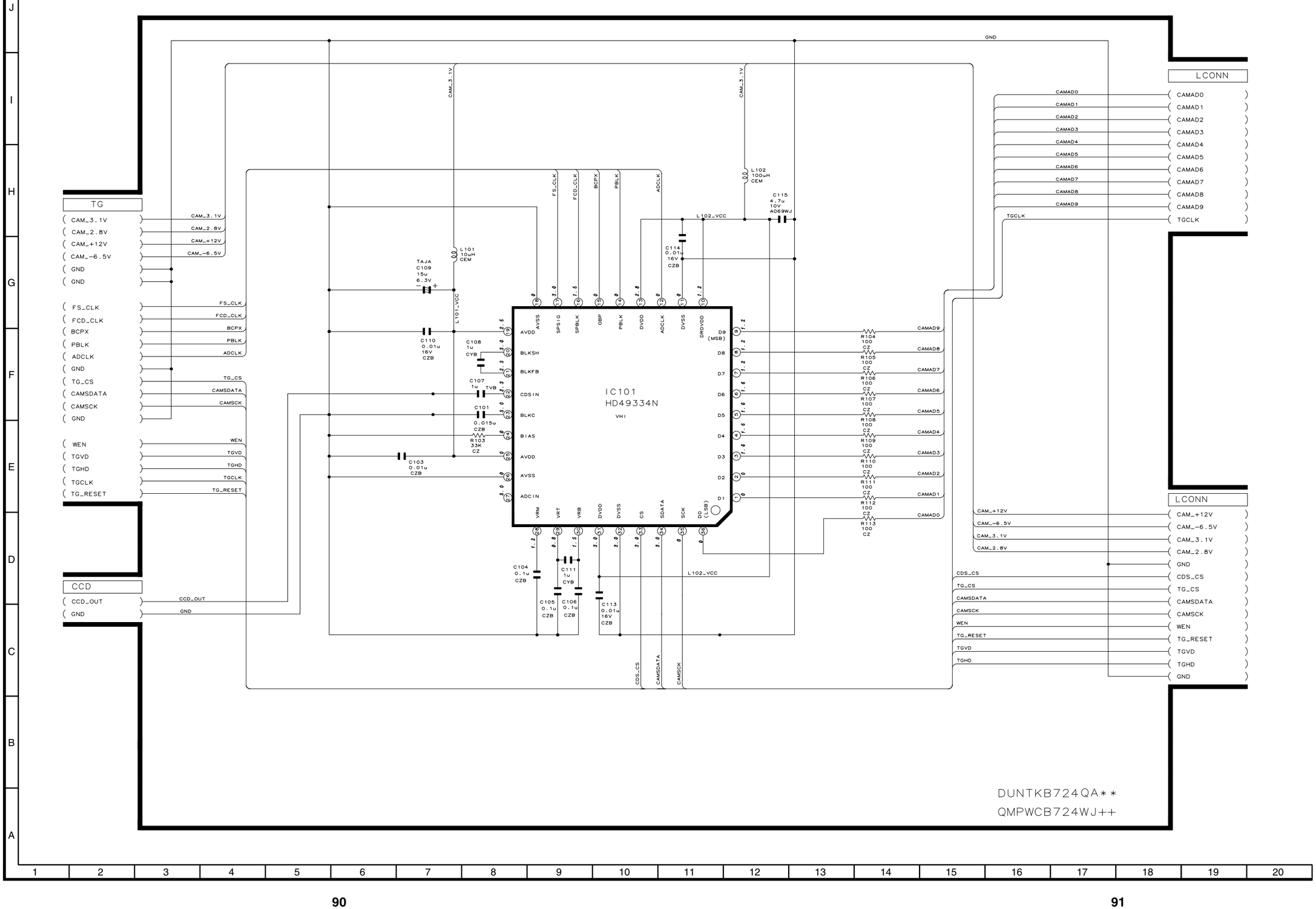
VL-Z1U

14-16. TG SCHEMATIC DIAGRAM



VL-Z1U

14-17. CDS SCHEMATIC DIAGRAM



VL-Z1U

14-18. LCONN SCHEMATIC DIAGRAM

CDS

CAMAD0
CAMAD1
CAMAD2
CAMAD3
CAMAD4
CAMAD5
CAMAD6
CAMAD7
CAMAD8
CAMAD9
TGCLK

CDS

CAM_+12V
CAM_−6.5V
CAM_3.1V
CAM_2.8V
GND
CDS_CS
TG_CS
CAMSDATA
CAMSCK
WEN
TG_RESET
TGVD
TGHD
GND

TP1003

TP1001

TP1002

SC1001
WA082WJ

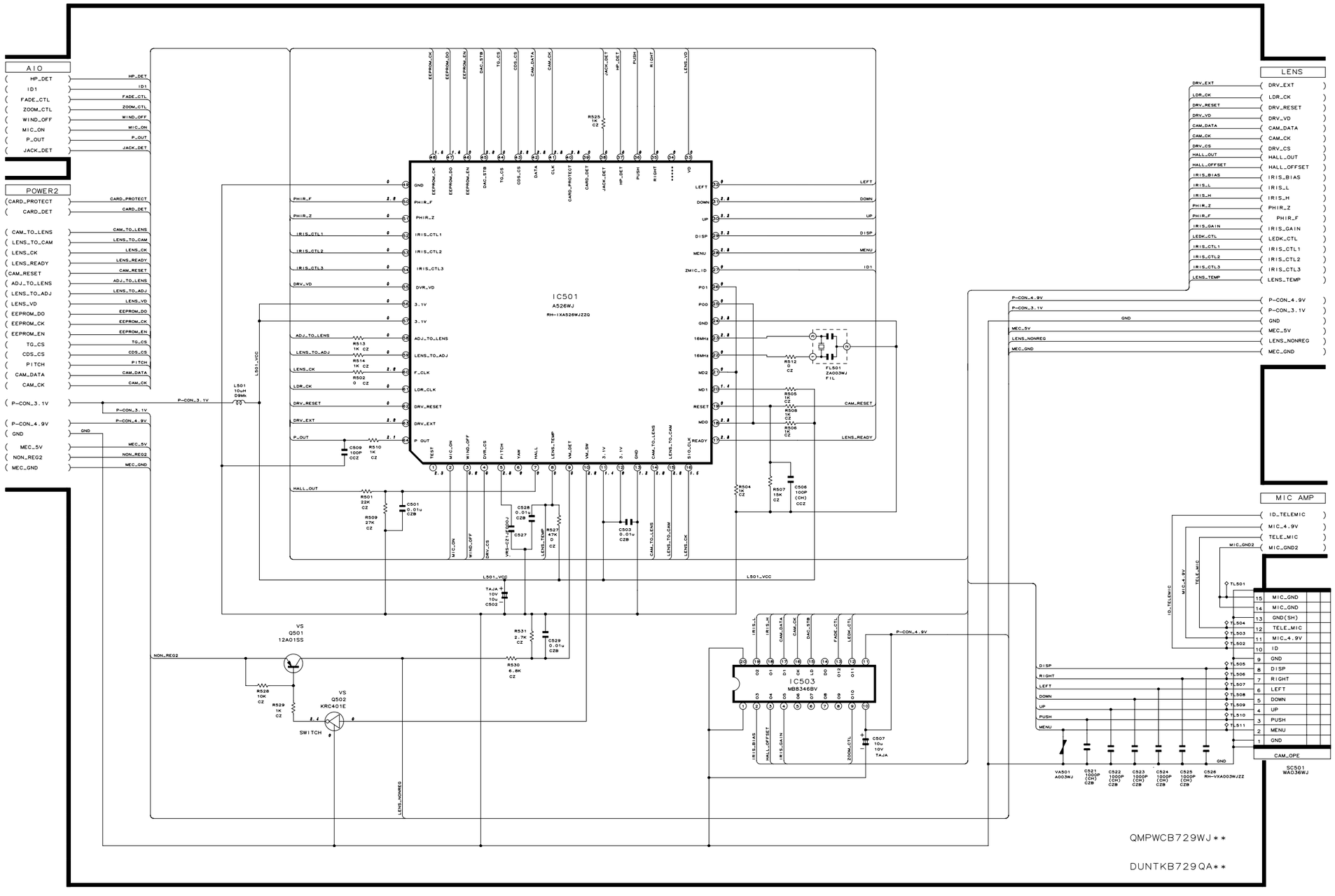
TO_MAIN

1	GND	TL1001	
2	P−CON_4.9V	TL1002	CAM_4.9V
3	P−CON_4.9V		
4	P−CON_3.1V	TL1003	CAM_3.1V
5	P−CON_3.1V		
6	P−CON_2.8V	TL1004	CAM_2.8V
7	PS_OUT	TL1005	PS_OUT
8	GND		
9	TGCLK	TL1006	TGCLK (R1019 0 CZ)
10	GND		
11	TG_CS	TL1007	TG_CS
12	TGVD	TL1008	TGVD
13	TGHD	TL1009	TGHD
14	WEN	TL1010	WEN
15	TG_RESET	TL1011	TG_RESET
16	CAM_12V	TL1012	CAM_+12V
17	CAM_−6.5V	TL1015	CAM_−6.5V
18	CDS_CS	TL1016	CDS_CS
19	CAMSDATA	TL1017	CAMSDATA
20	CAMSCK	TL1019	CAMSCK
21	GND		
22	GND		
23	ADIN0	TL1020	CAMAD0
24	ADIN5	TL1021	CAMAD5
25	ADIN1	TL1022	CAMAD1
26	ADIN6	TL1023	CAMAD6
27	ADIN2	TL1024	CAMAD2
28	ADIN7	TL1025	CAMAD7
29	ADIN3	TL1026	CAMAD3
30	ADIN8	TL1028	CAMAD8
31	ADIN4	TL1030	CAMAD4
32	ADIN9	TL1031	CAMAD9
33	GND		

DUNTKB724QA**
QMPWCB724WJ++

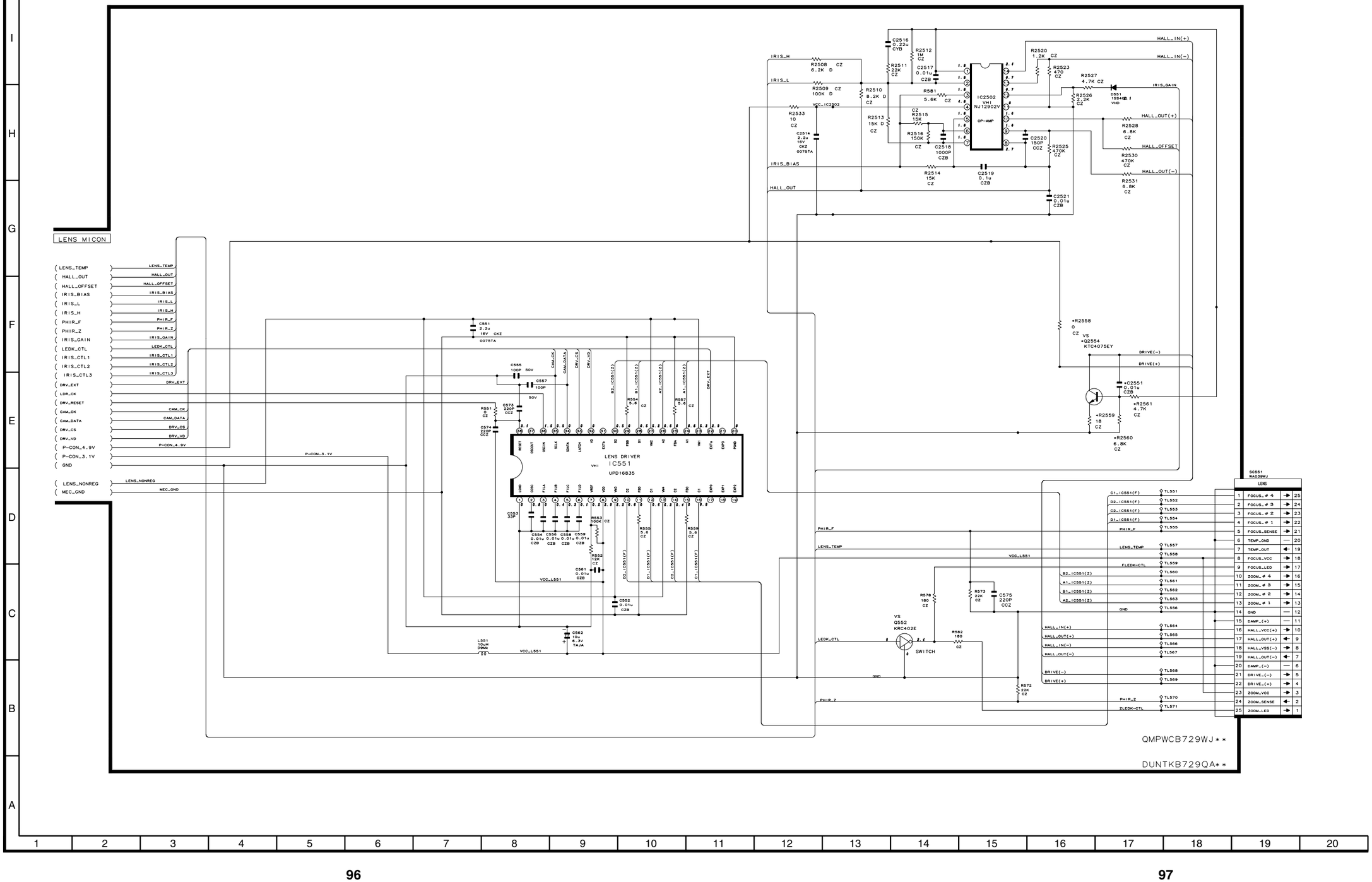
VL-Z1U

14-19. LENS MiCON SCHEMATIC DIAGRAM



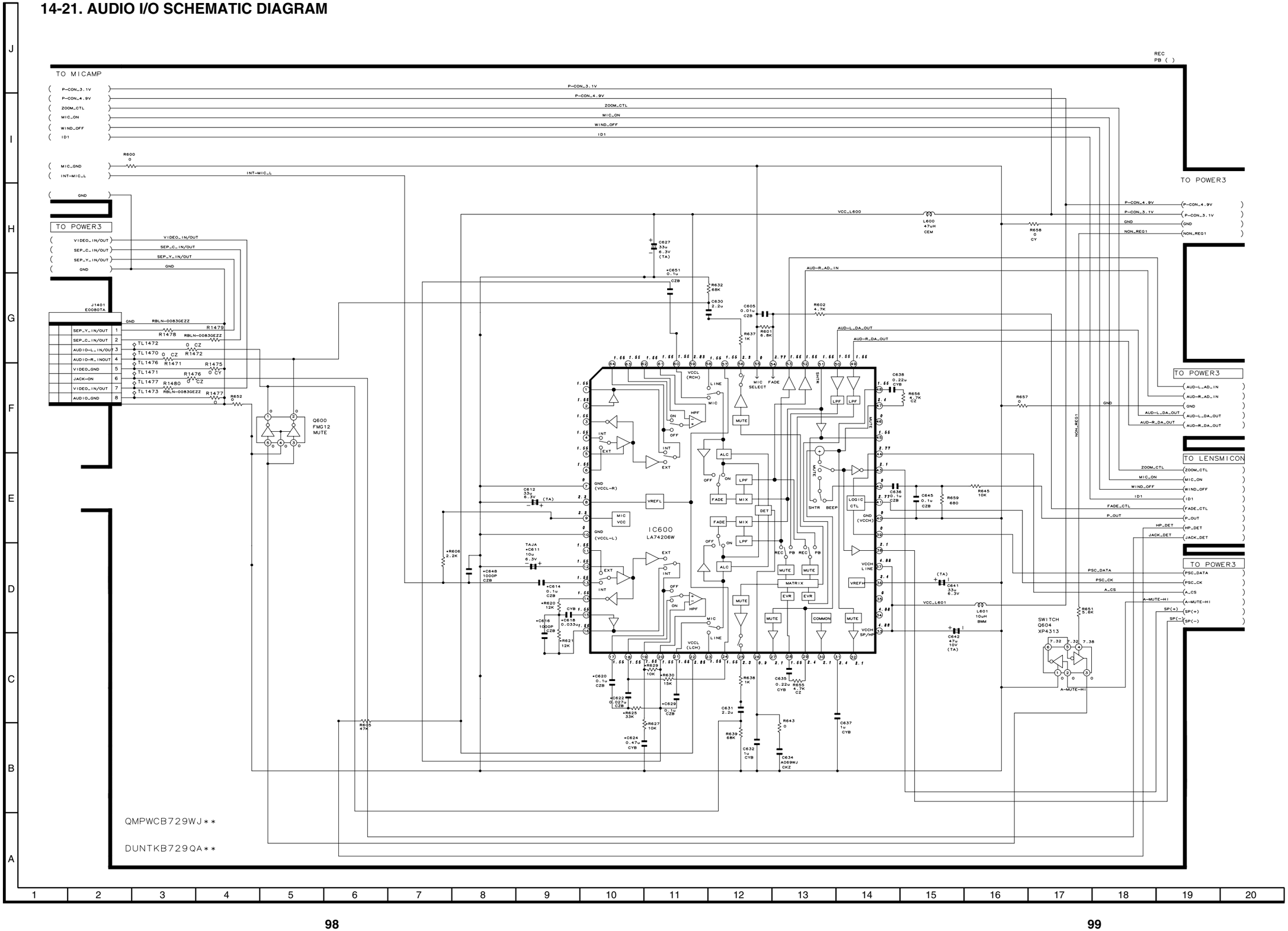
VL-Z1U

14-20. LENS SCHEMATIC DIAGRAM



VL-Z1U

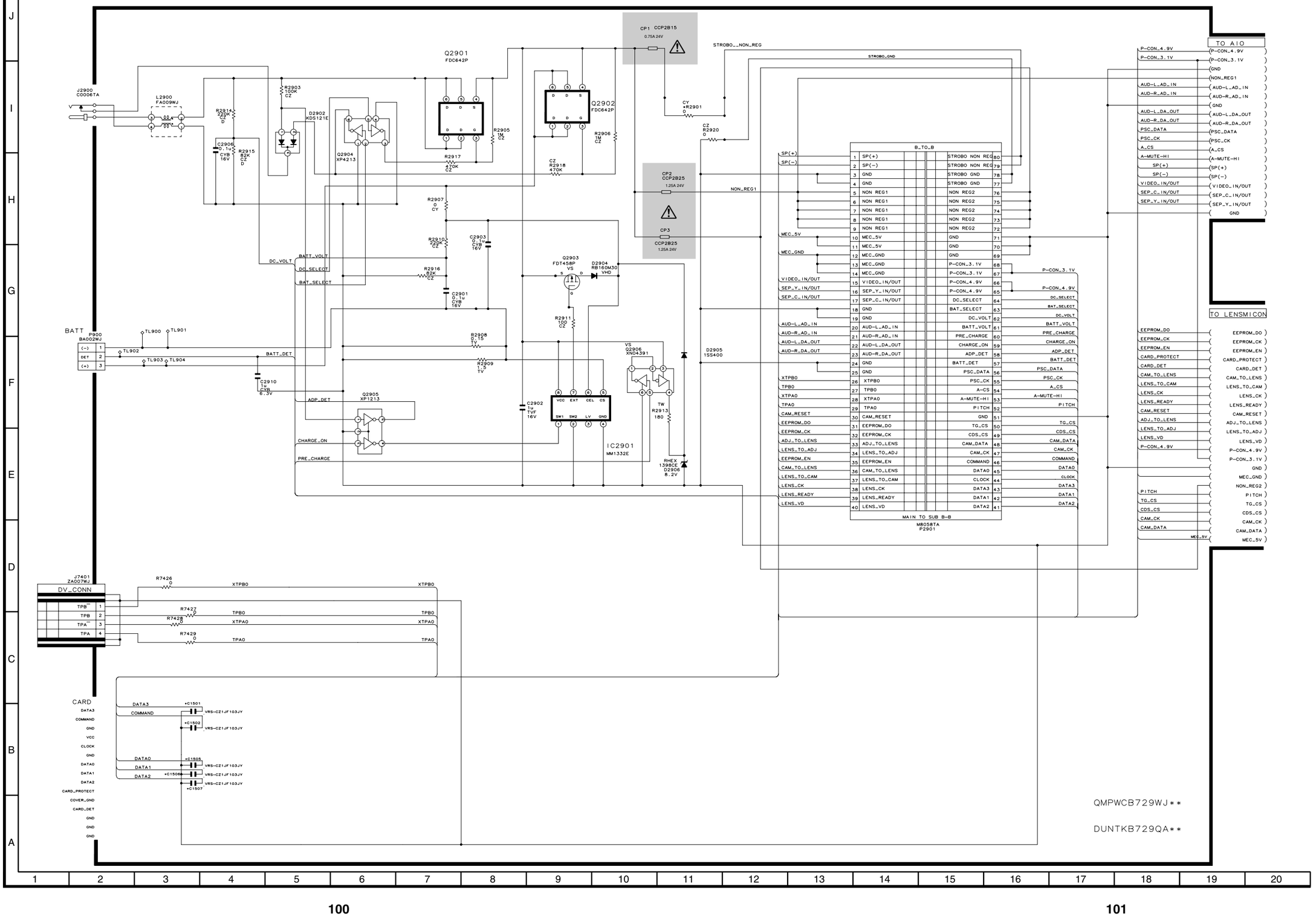
14-21. AUDIO I/O SCHEMATIC DIAGRAM



VL-Z1U

14-22. POWER2 SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



VL-Z1U

14-23. MiC AMP SCHEMATIC DIAGRAM

QMPWCB729WJ**

DUNTKB729QA**

LENS

(ID_TELEMIC)

P3602
N0474TA
TO INT-MIC

1	→	INT-MIC_L	1
2	—	MIC_GND	2
3	→	INT-MIC_R	3
	—	MIC_GND	4

TL3601 TL3602 TL3603

TL3600

*R3638
0
CZ

TO AIO

(MIC_GND)

(P-CON_3.1V)

R3635
180K
CZ

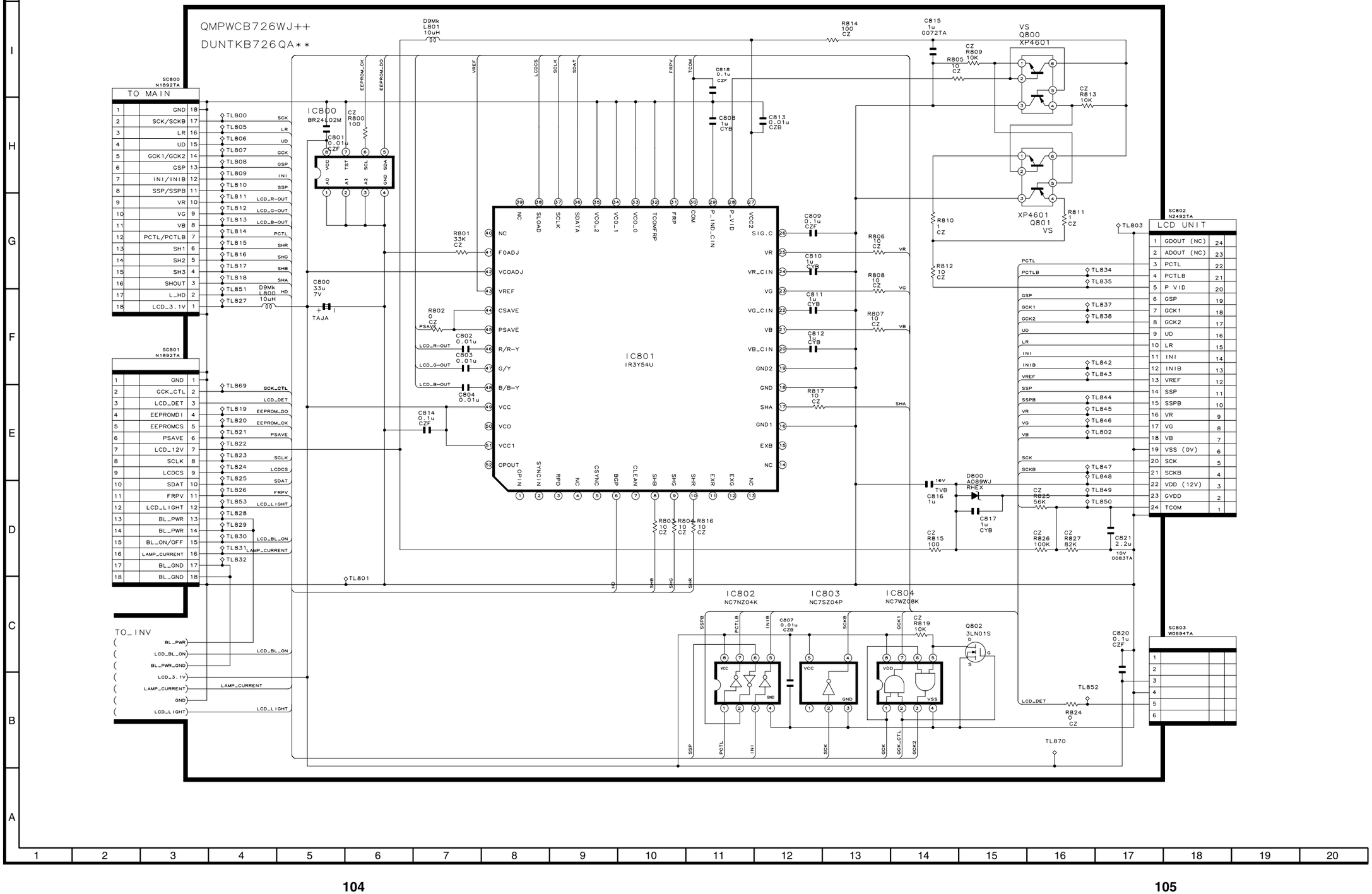
R3643
150K
CZ

(ID1)

(INT-MIC_L)

VL-Z1U

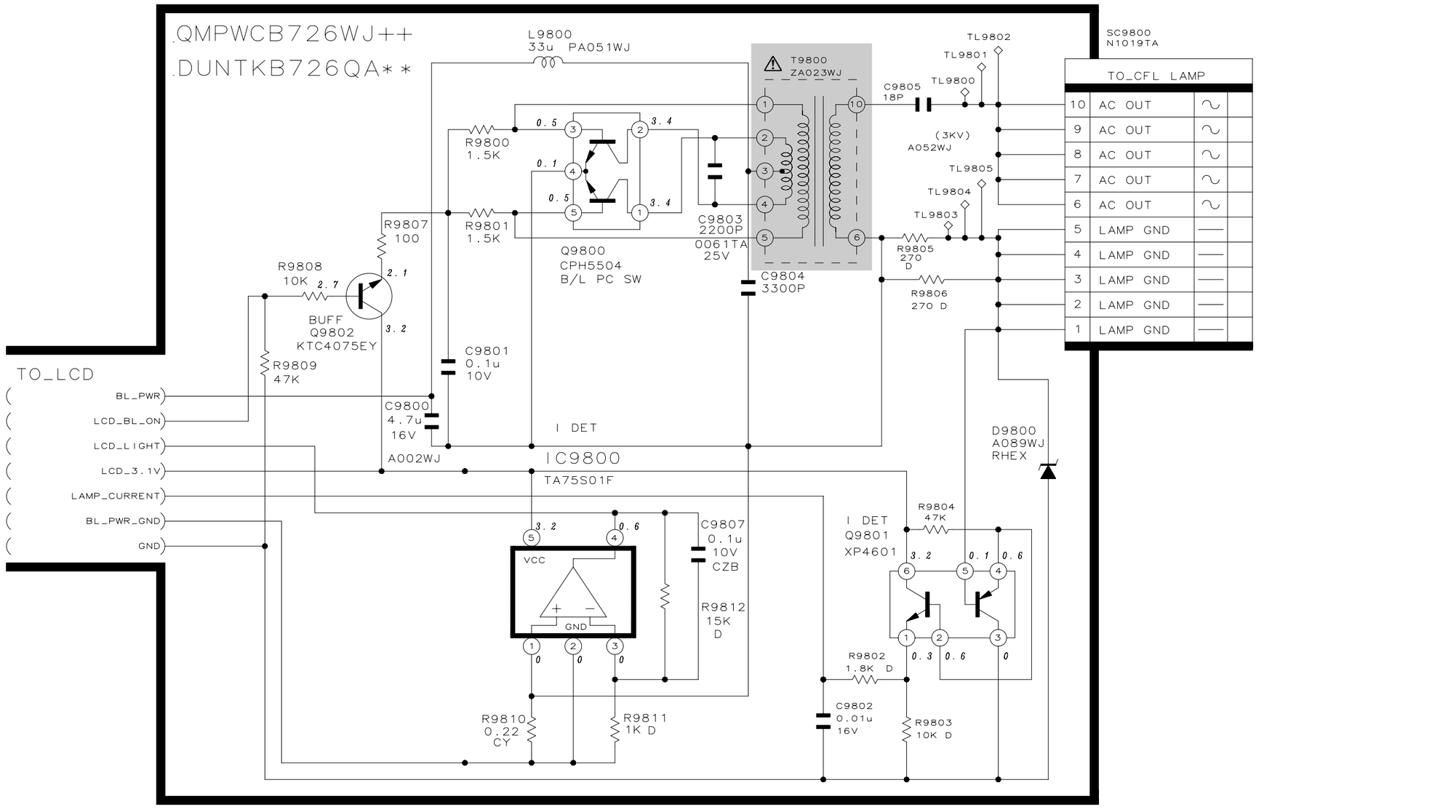
14-24. LCD SCHEMATIC DIAGRAM



VL-Z1U

14-25. INVERTER SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



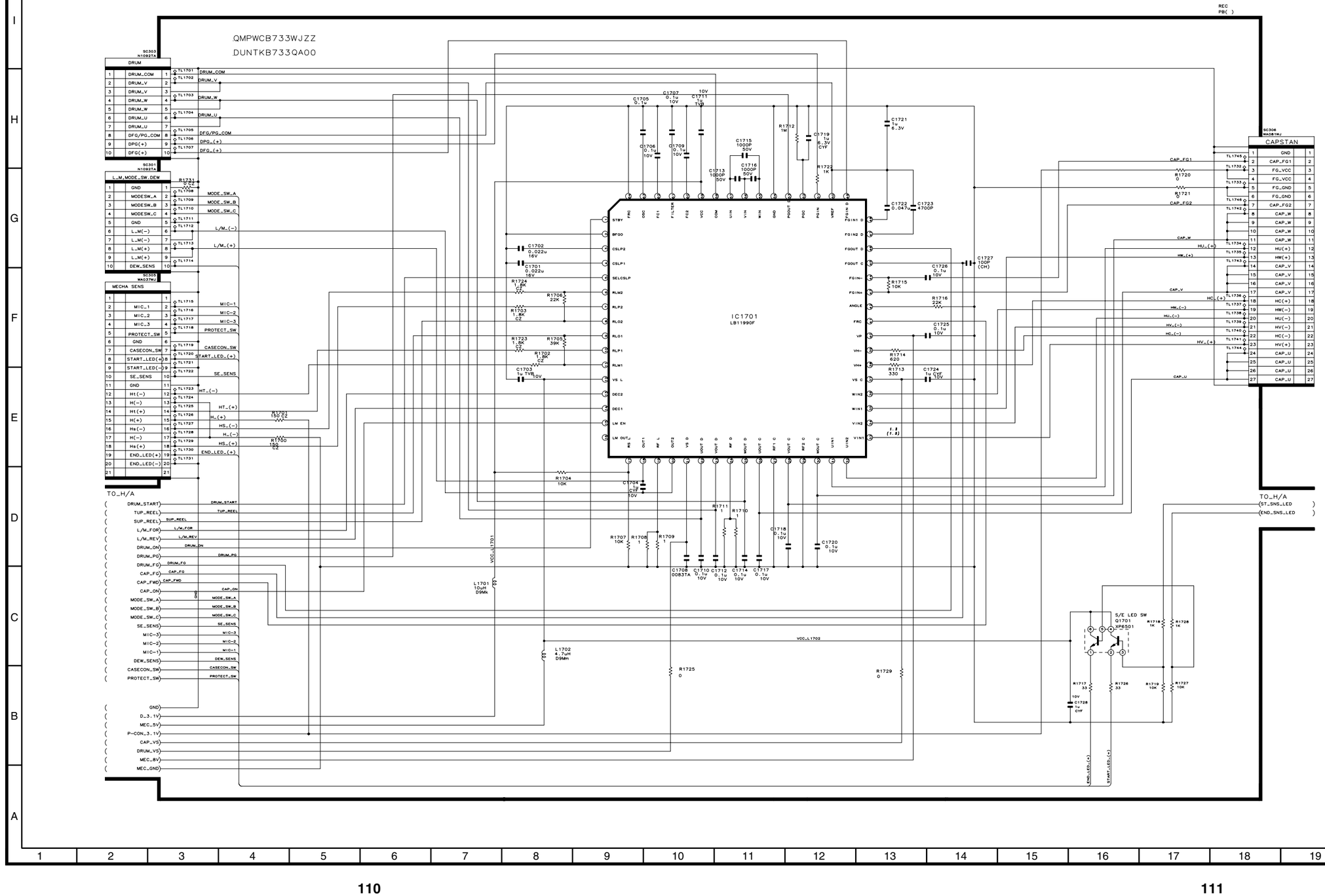
VL-Z1U

14-26. HEAD AMP SCHEMATIC DIAGRAM

QMPWCB733WJZZ
DUNTKB733QA00

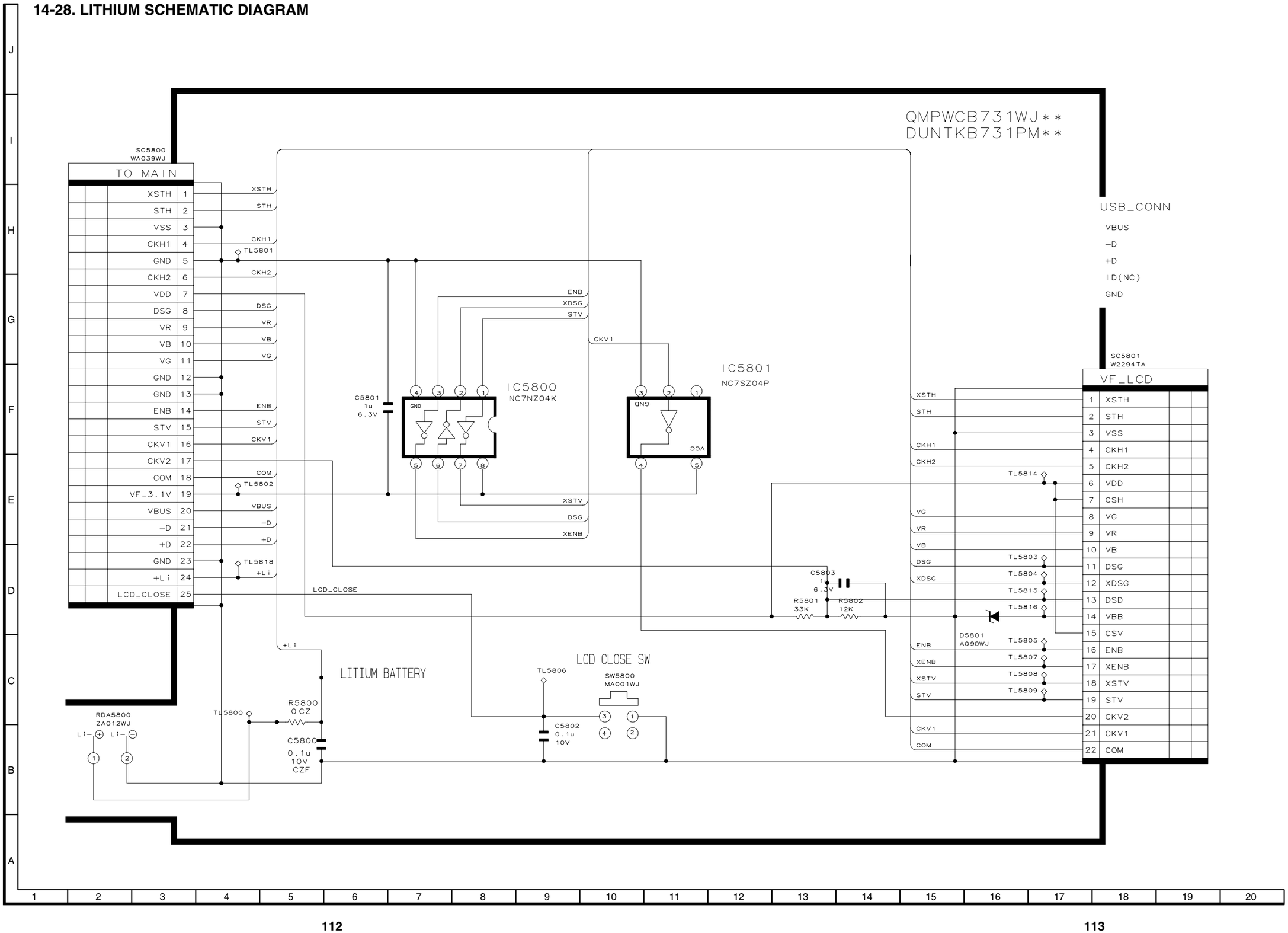
VL-Z1U

14-27. MOTOR DRIVE SCHEMATIC DIAGRAM



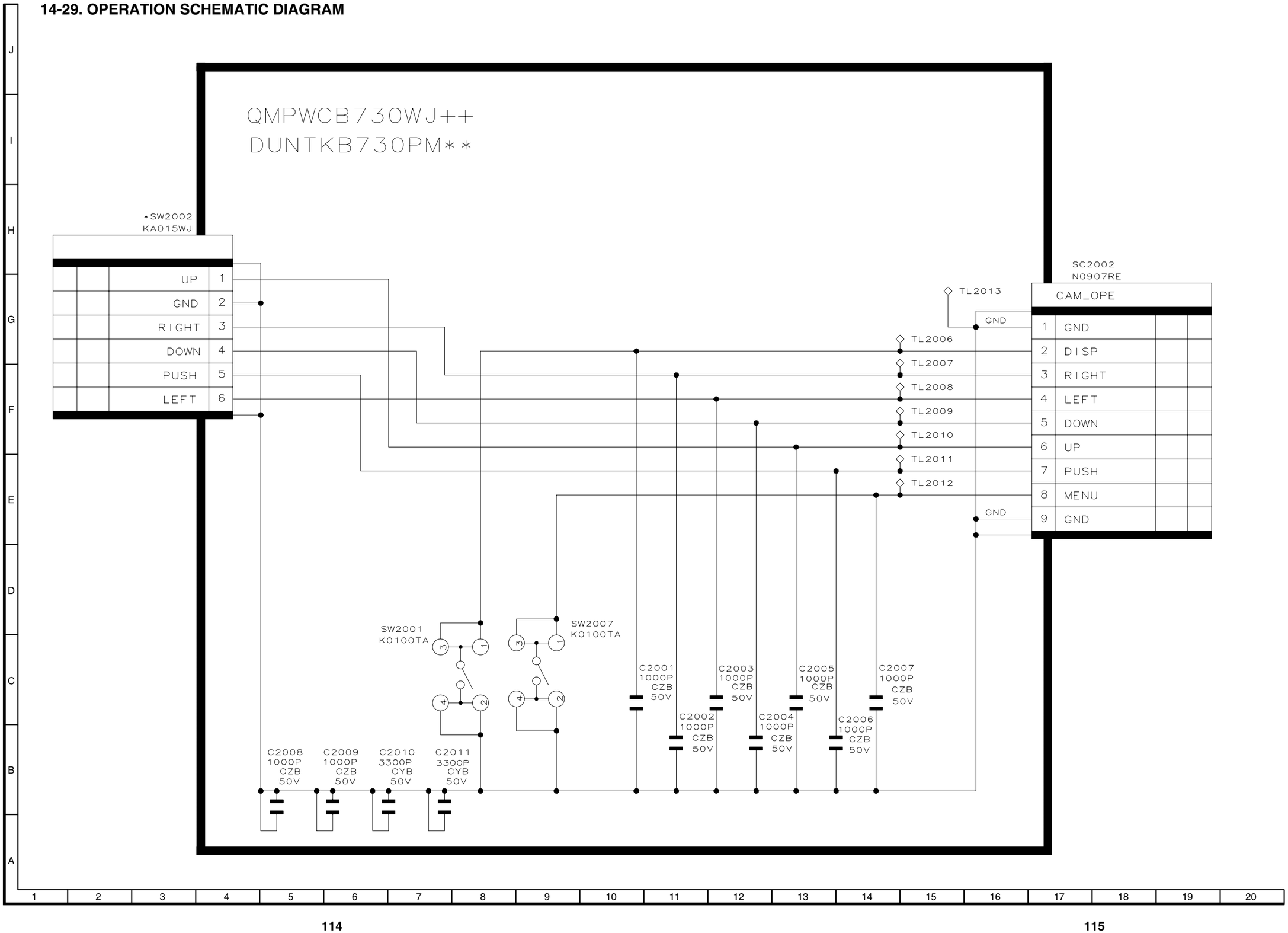
VL-Z1U

14-28. LITHIUM SCHEMATIC DIAGRAM



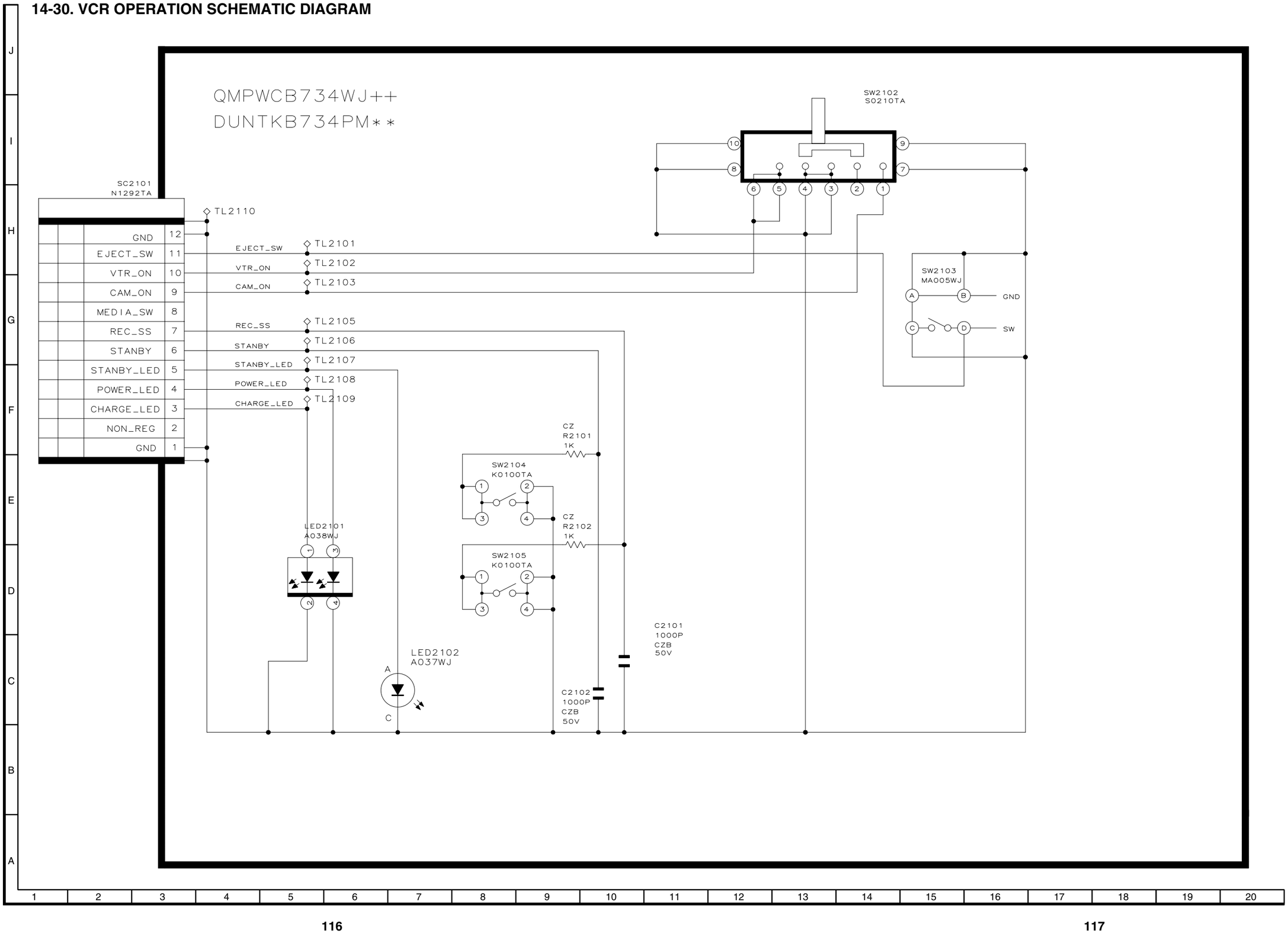
VL-Z1U

14-29. OPERATION SCHEMATIC DIAGRAM



VL-Z1U

14-30. VCR OPERATION SCHEMATIC DIAGRAM



VL-Z1U

14-31. ZOOM SW SCHEMATIC DIAGRAM

QMPWCB735WJ++
DUNTKB735PM00

VR2201
VA001WJ
RVR

SW2201
K0097TA

C2201
1000P
CZB

C2202
1000P
CZB

SC2201
N1006TA

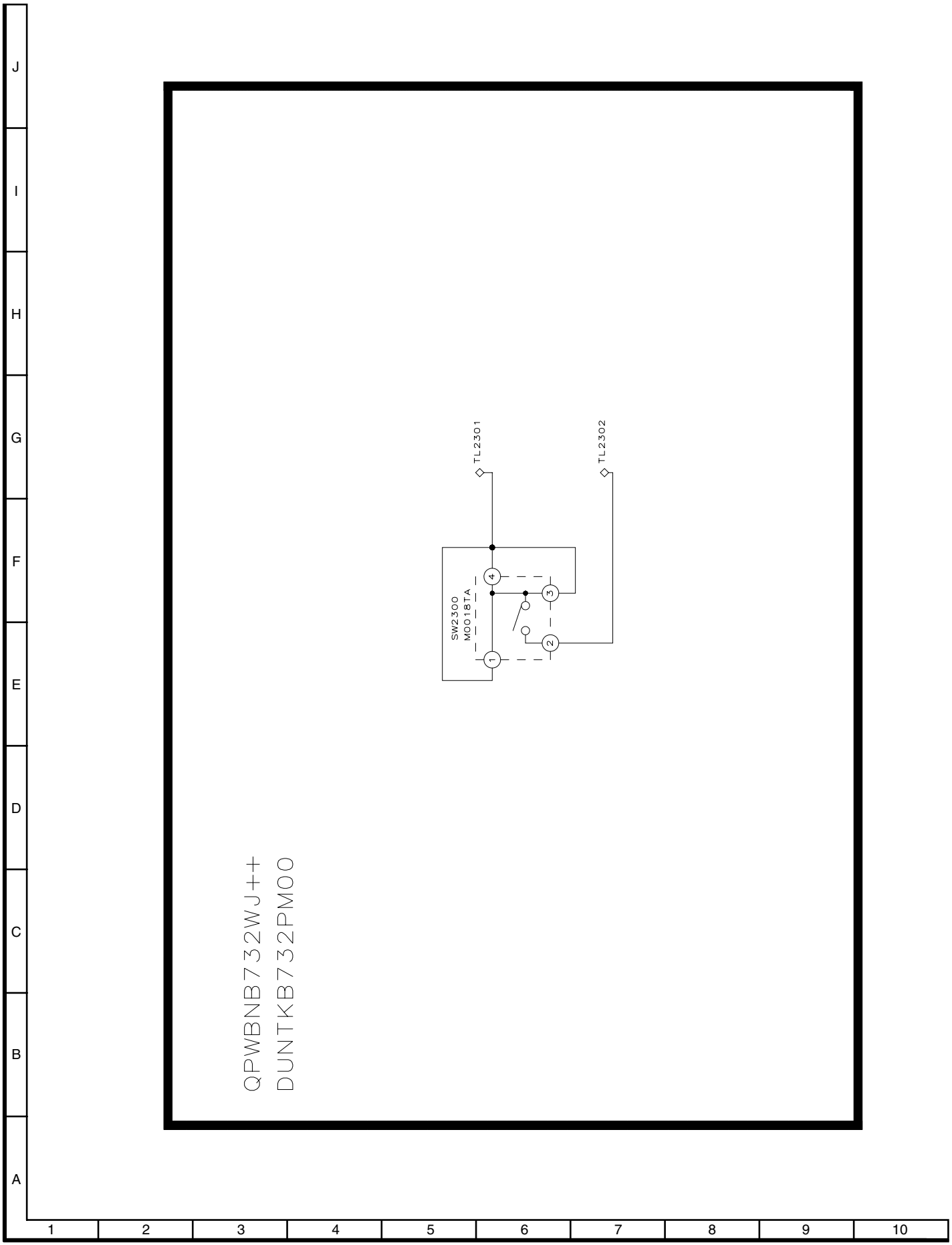
1	GND		
2	ZOOM_SW		
3	ZOOM_VCC		
4	SNAP_1		
5	SNAP_2		
6	SP(+)		
7	SP(+)		
8	SP(−)		
9	SP(−)		
10	GND		

P2201
N0276TA

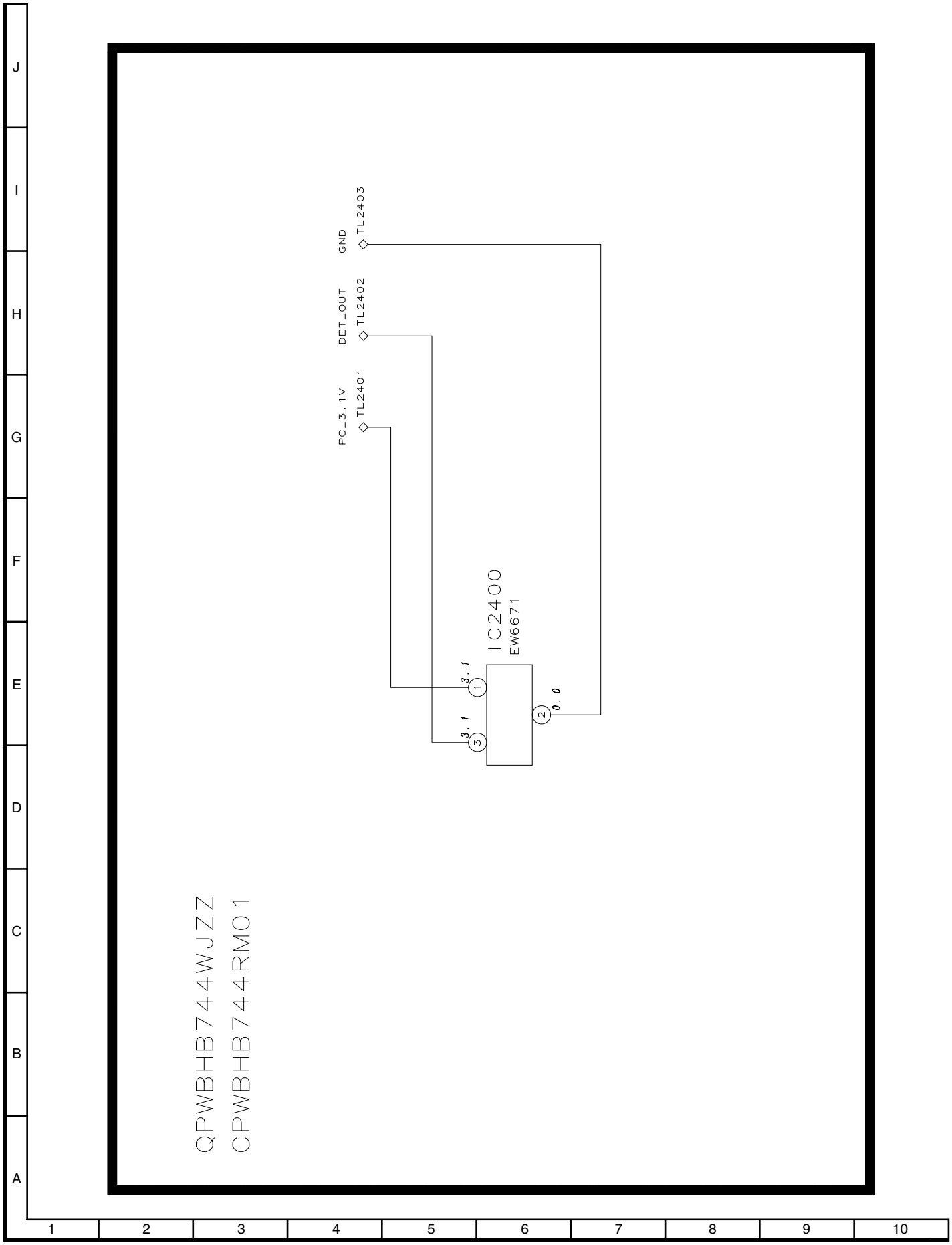
1	SP(+)		
2	SP(−)		

TL2201
TL2202
TL2203
TL2204
TL2205

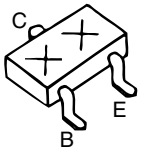
14-32. MECHA REVERSION DETECTION SCHEMATIC DIAGRAM



14-33. HOLE SENSOR UNIT SCHEMATIC DIAGRAM



15. SEMICONDUCTOR LEAD IDENTIFICATION



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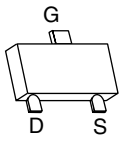

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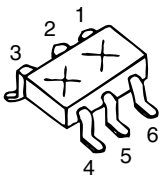

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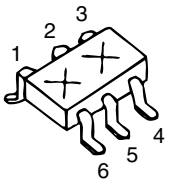

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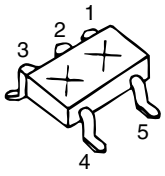

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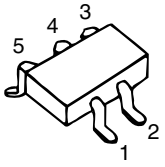

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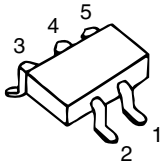

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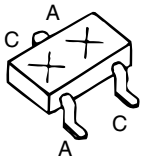

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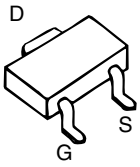

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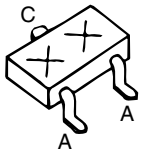

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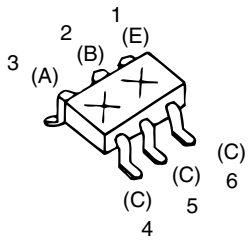

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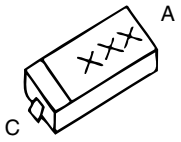

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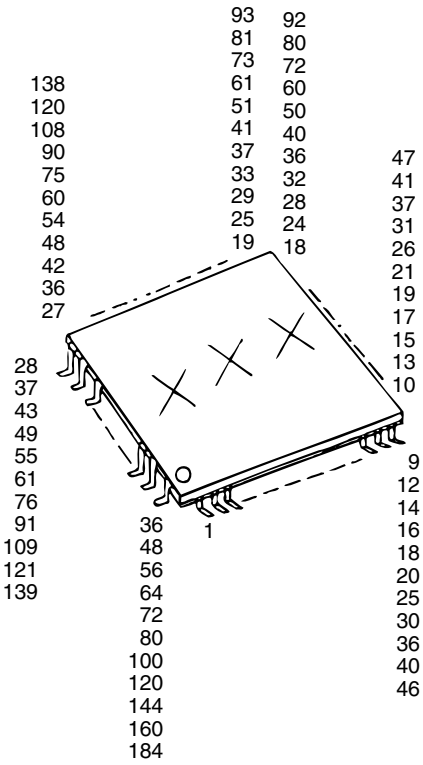

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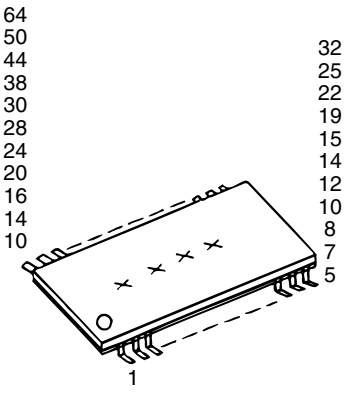

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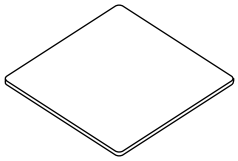

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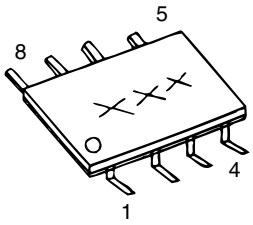

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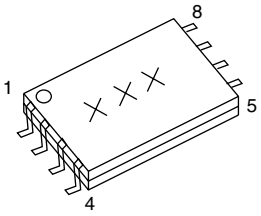

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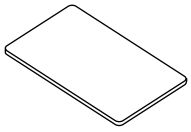

IXA550WJ
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16. PRINTED WIRING BOARD ASSEMBLIES MAIN PWB

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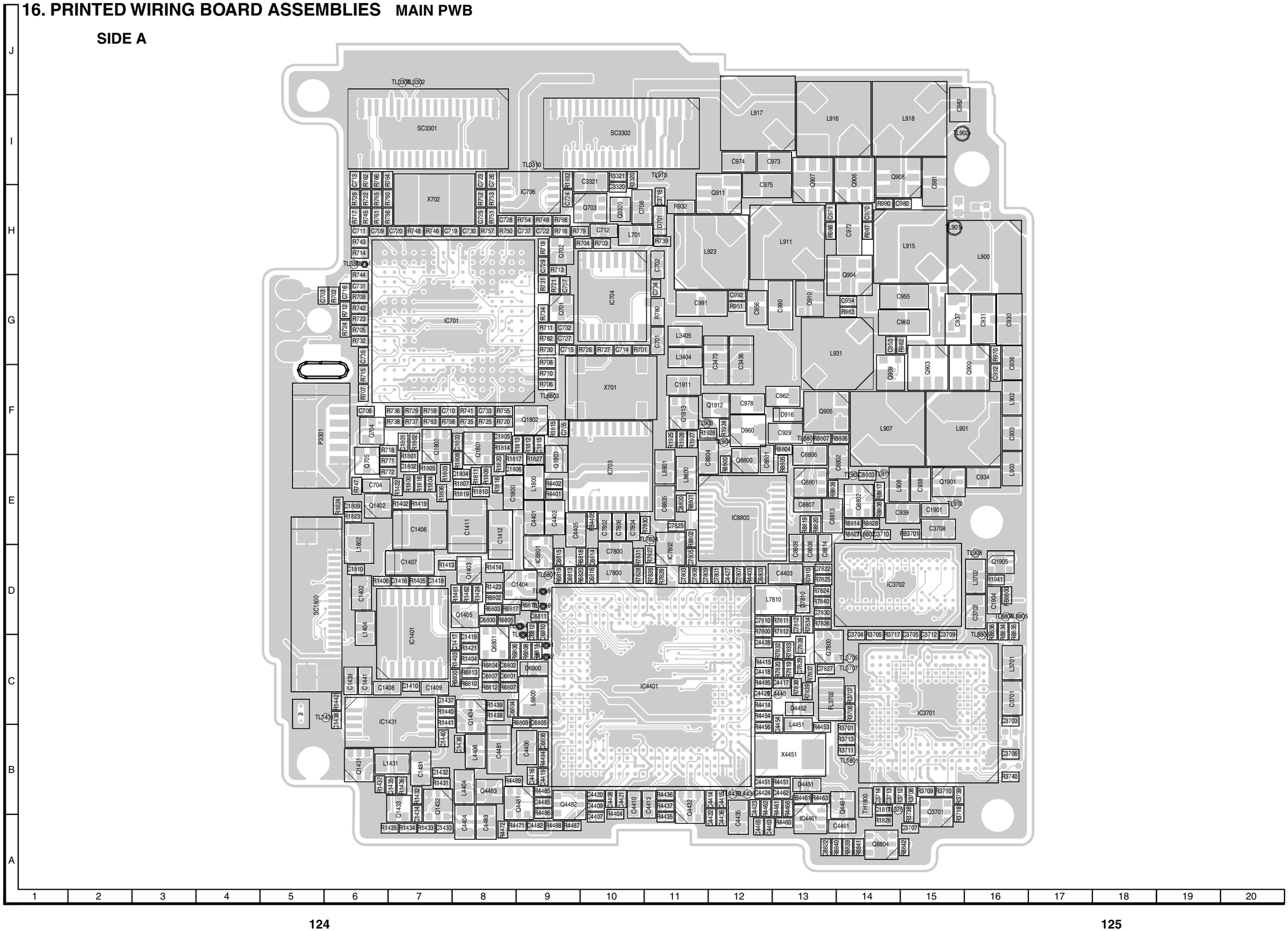
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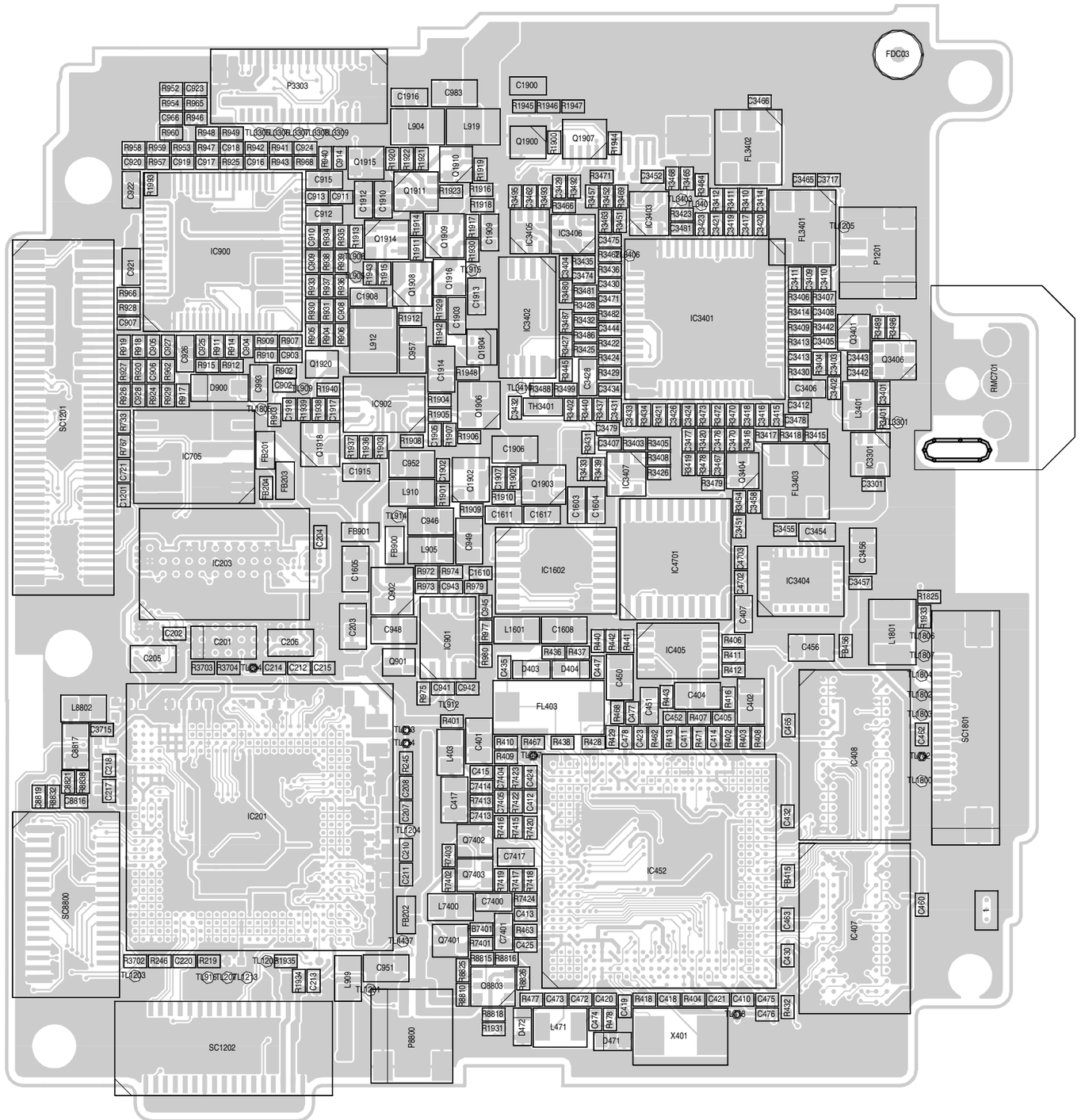
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CCD PWB

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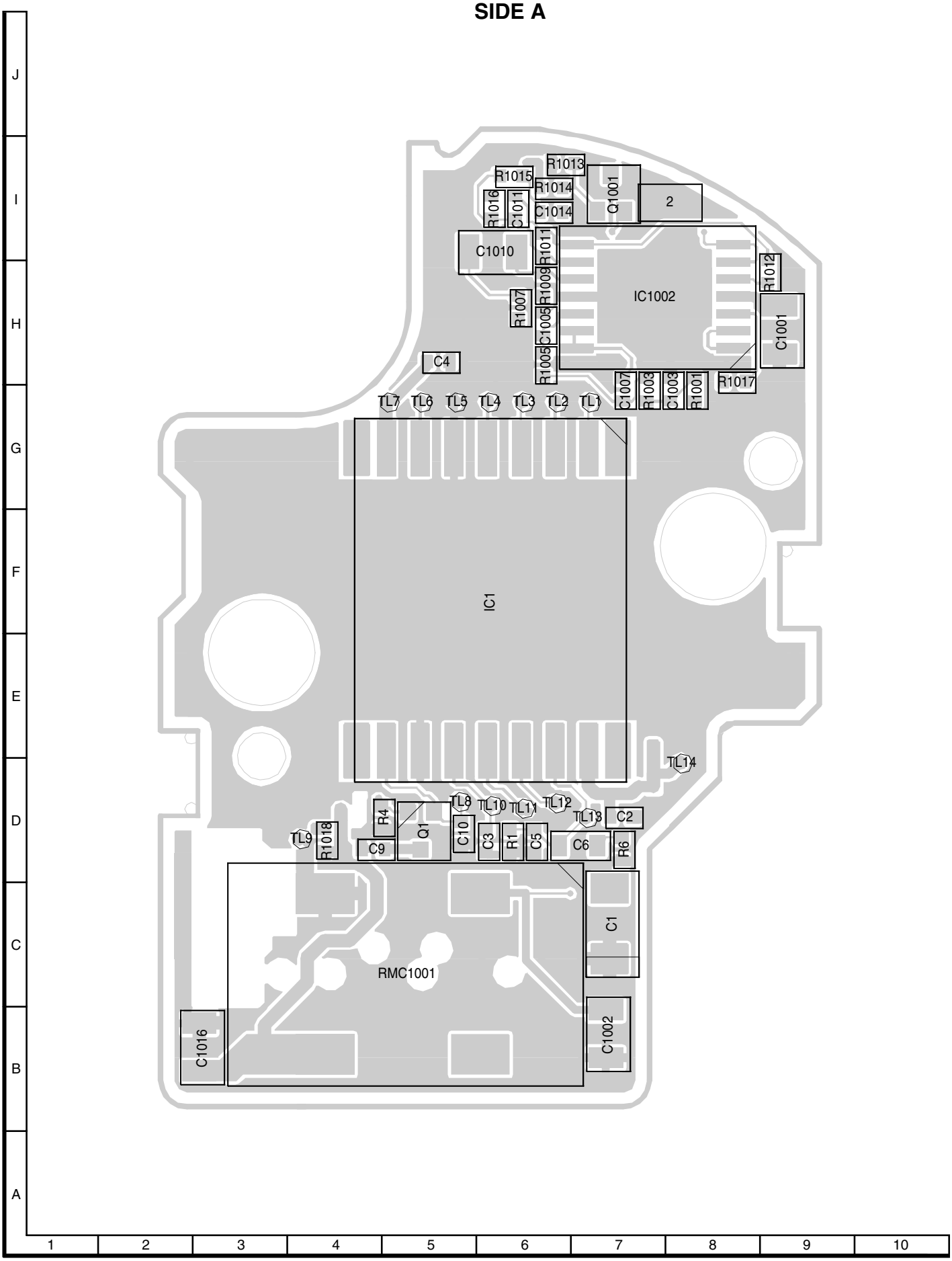

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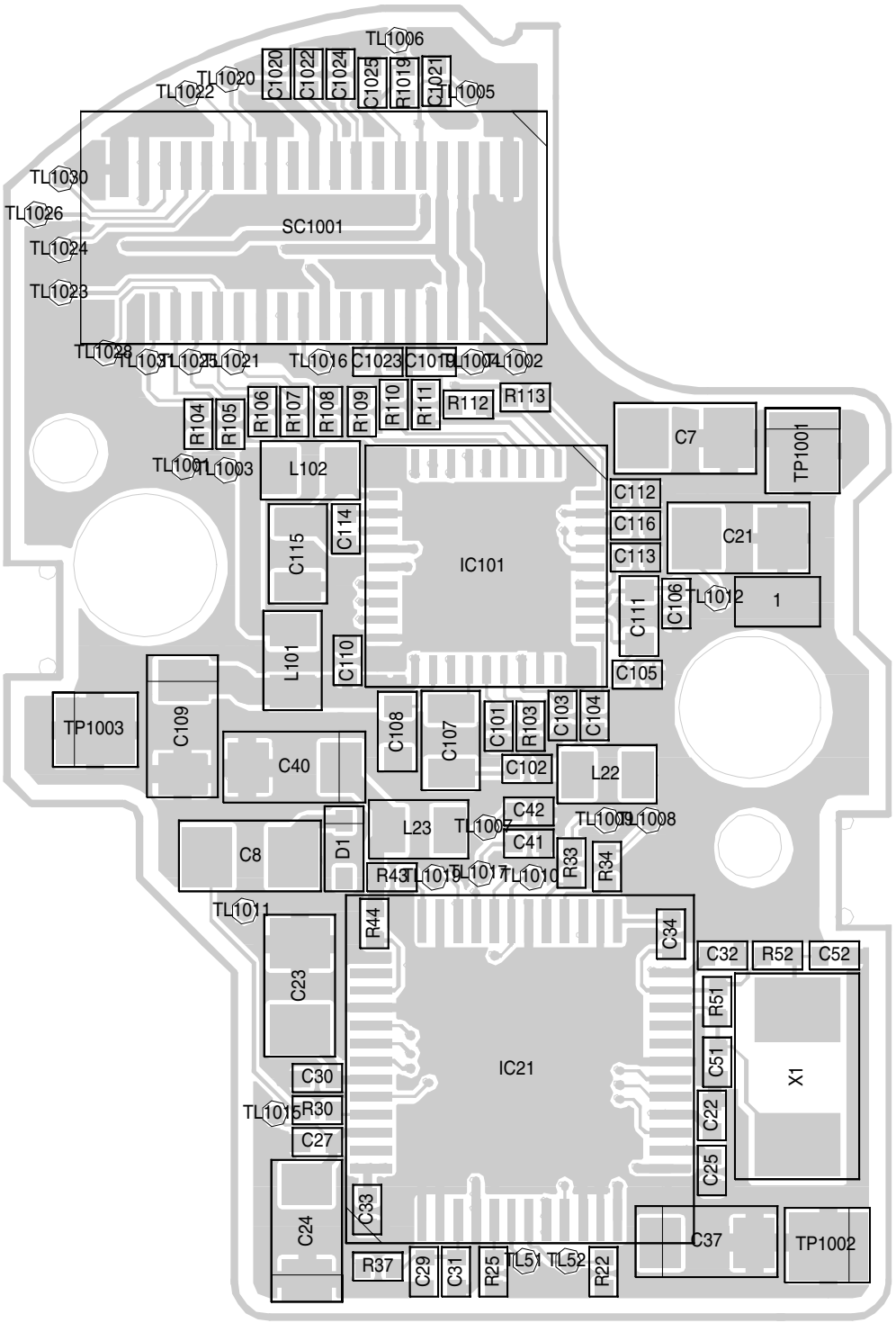

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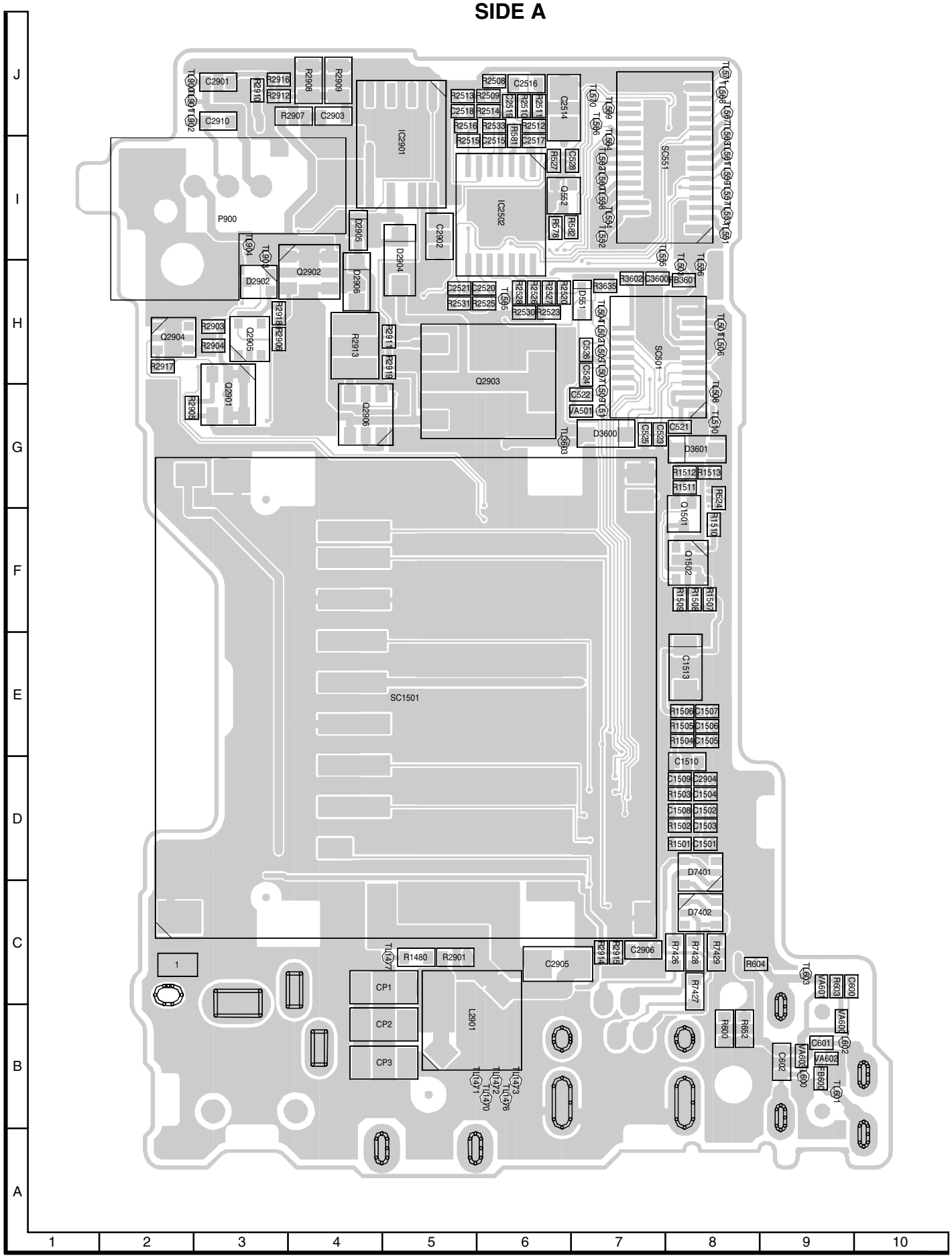
SUB PWB

SIDE A



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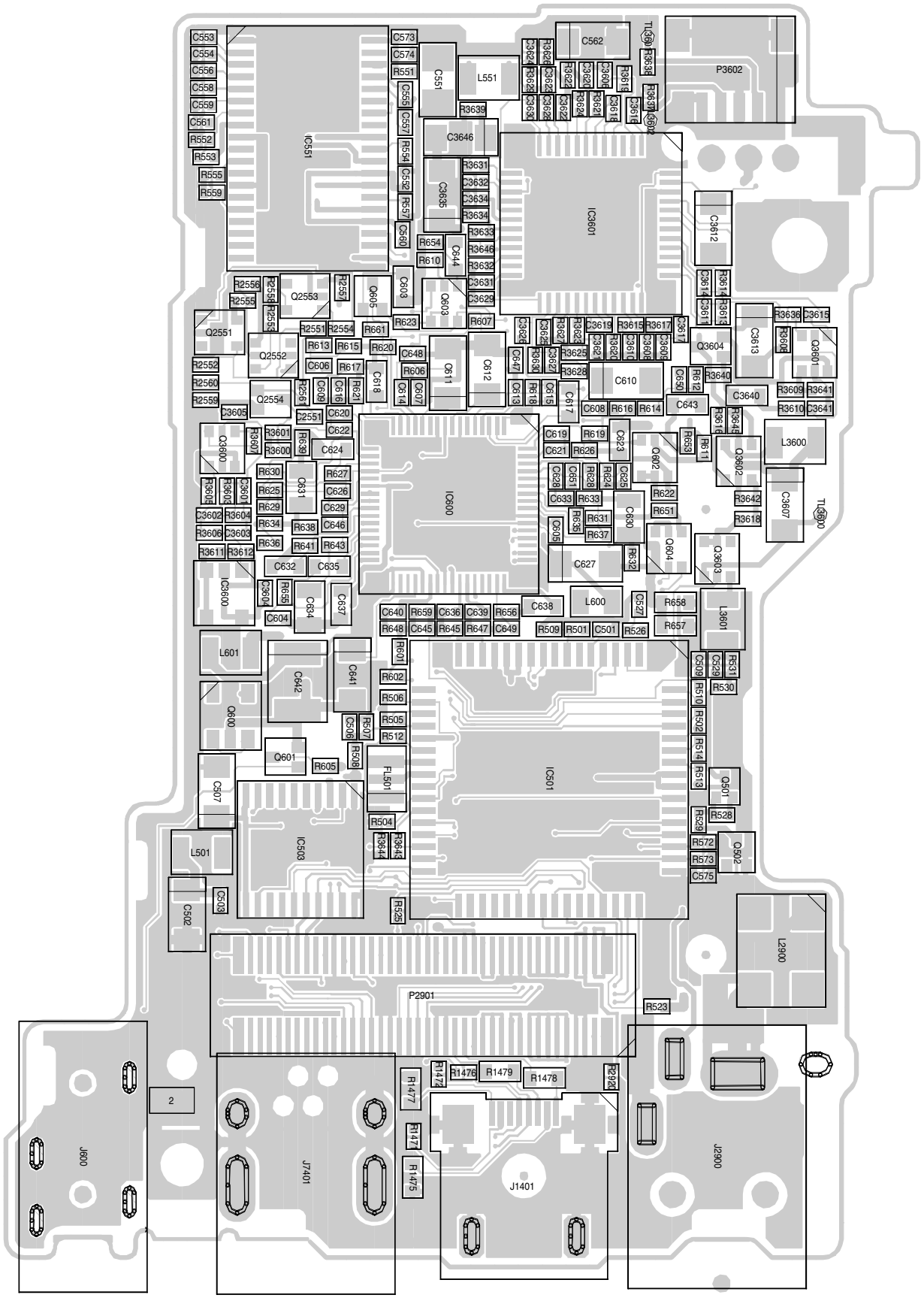

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LCD PWB

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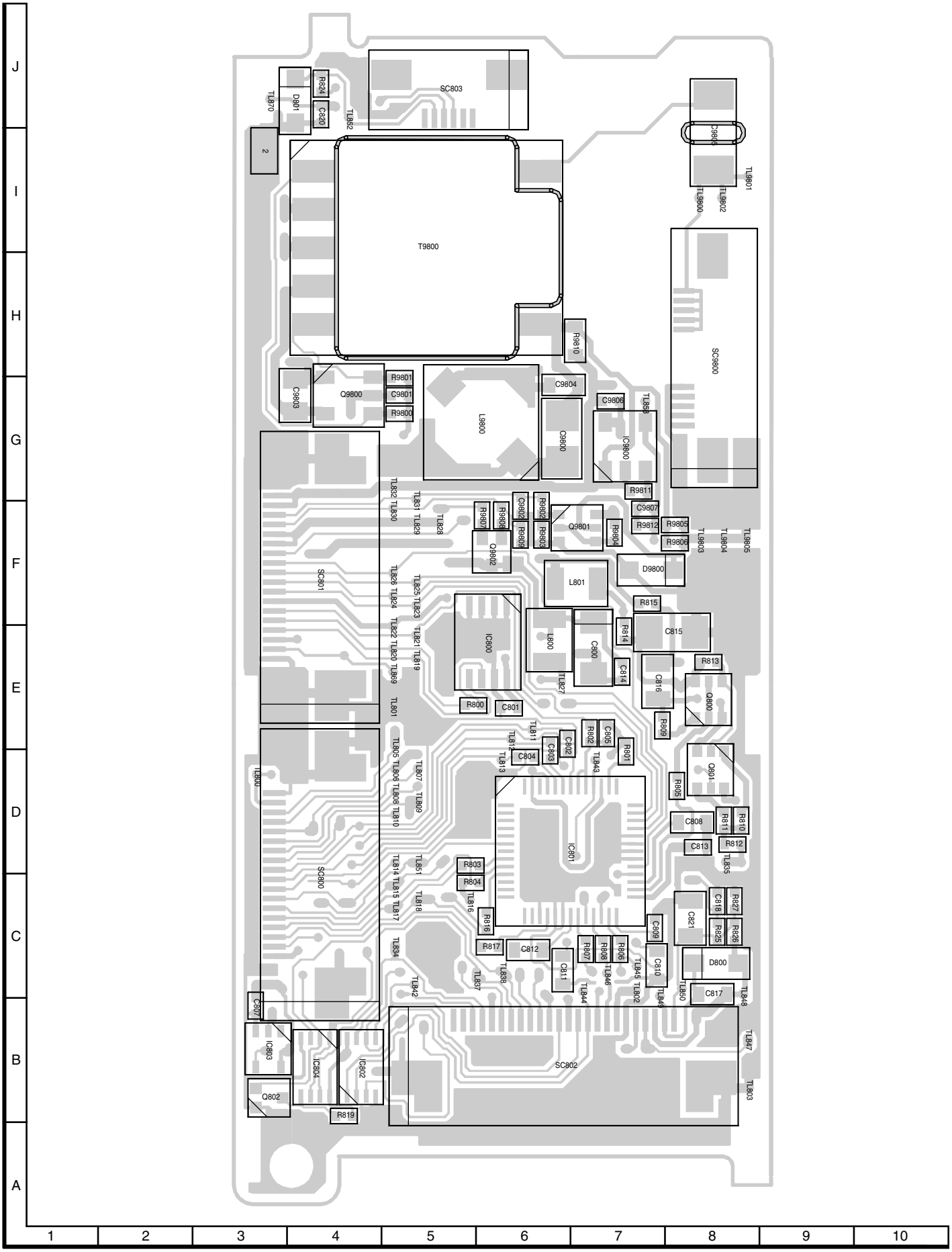

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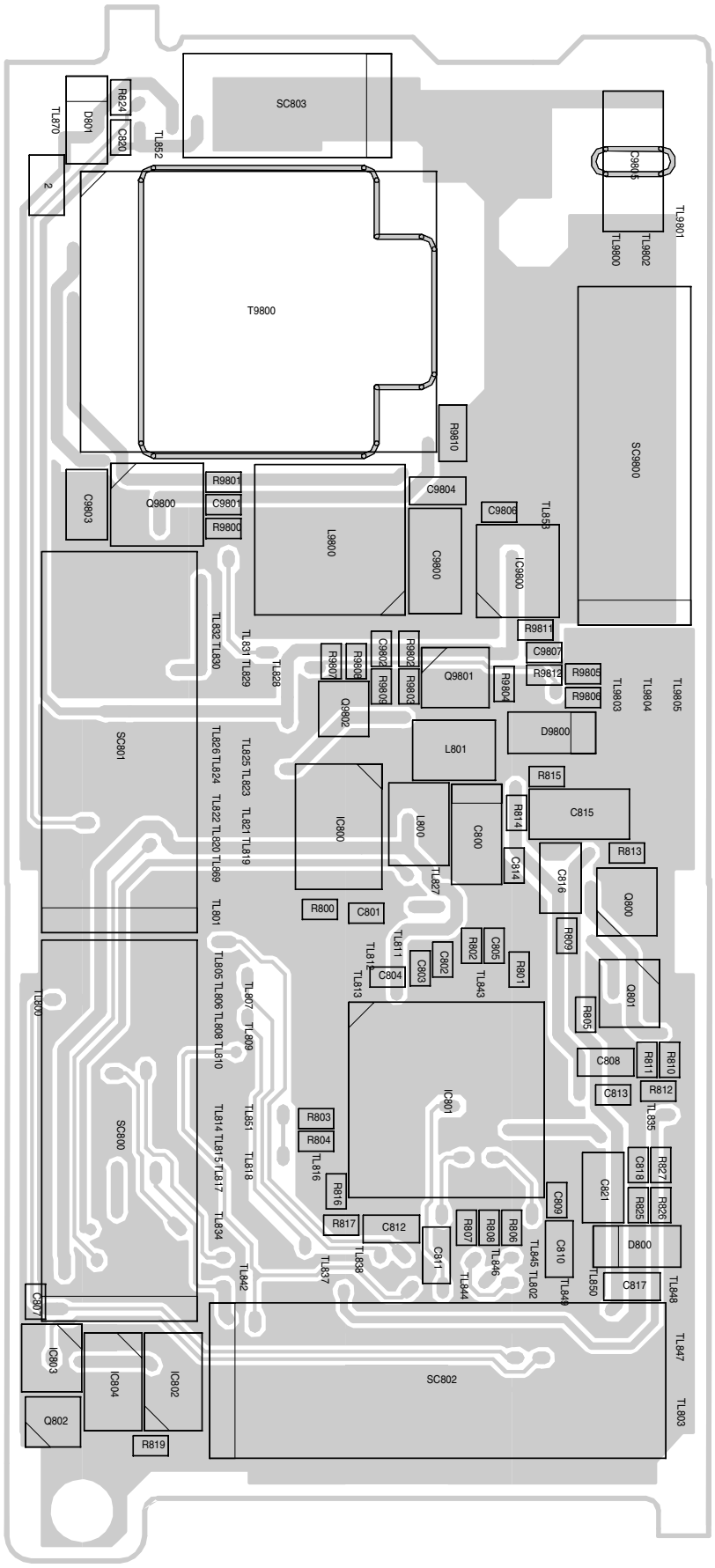
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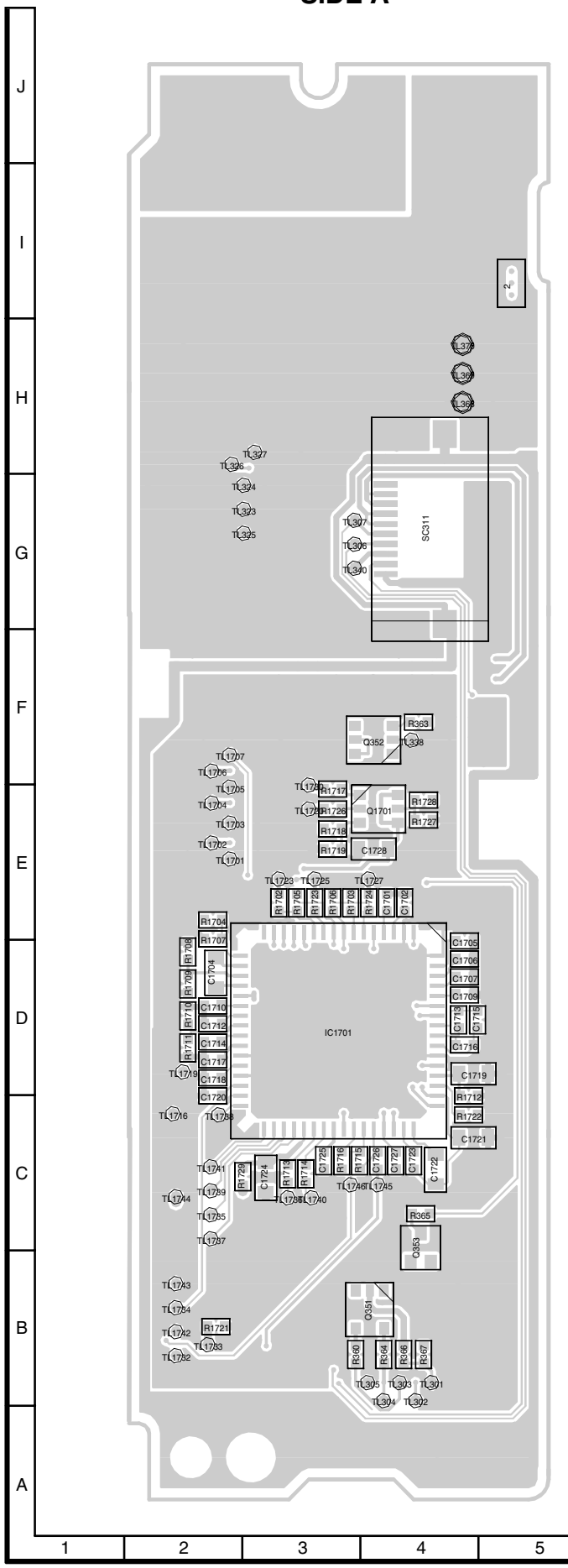
HEAD AMP PWB

SIDE A



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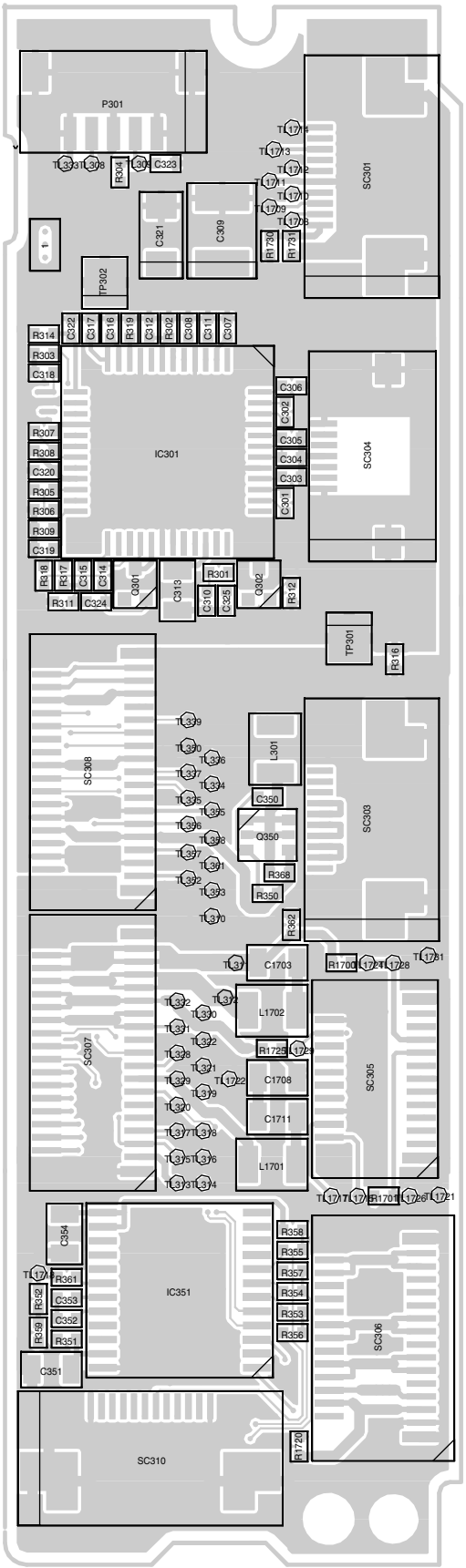
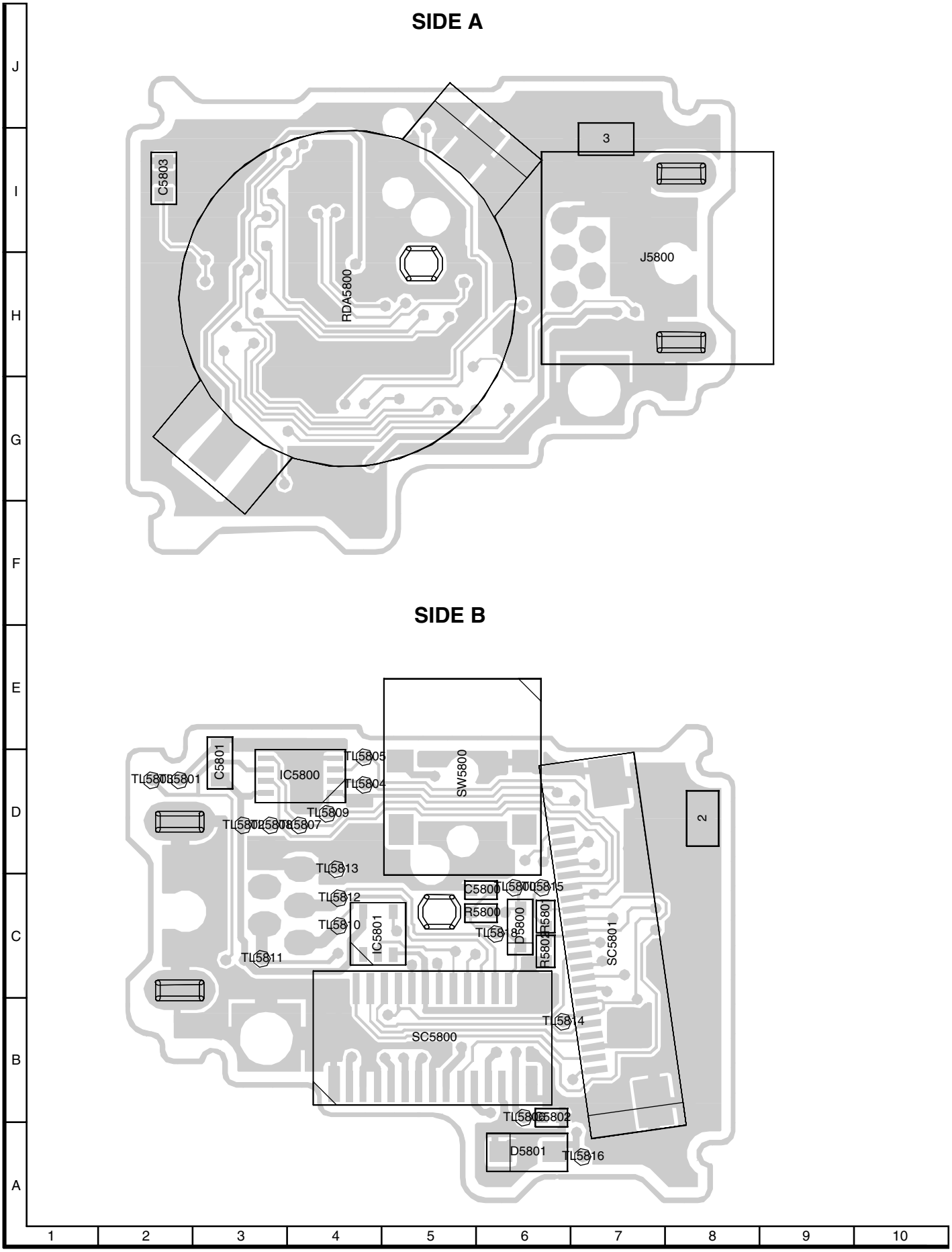


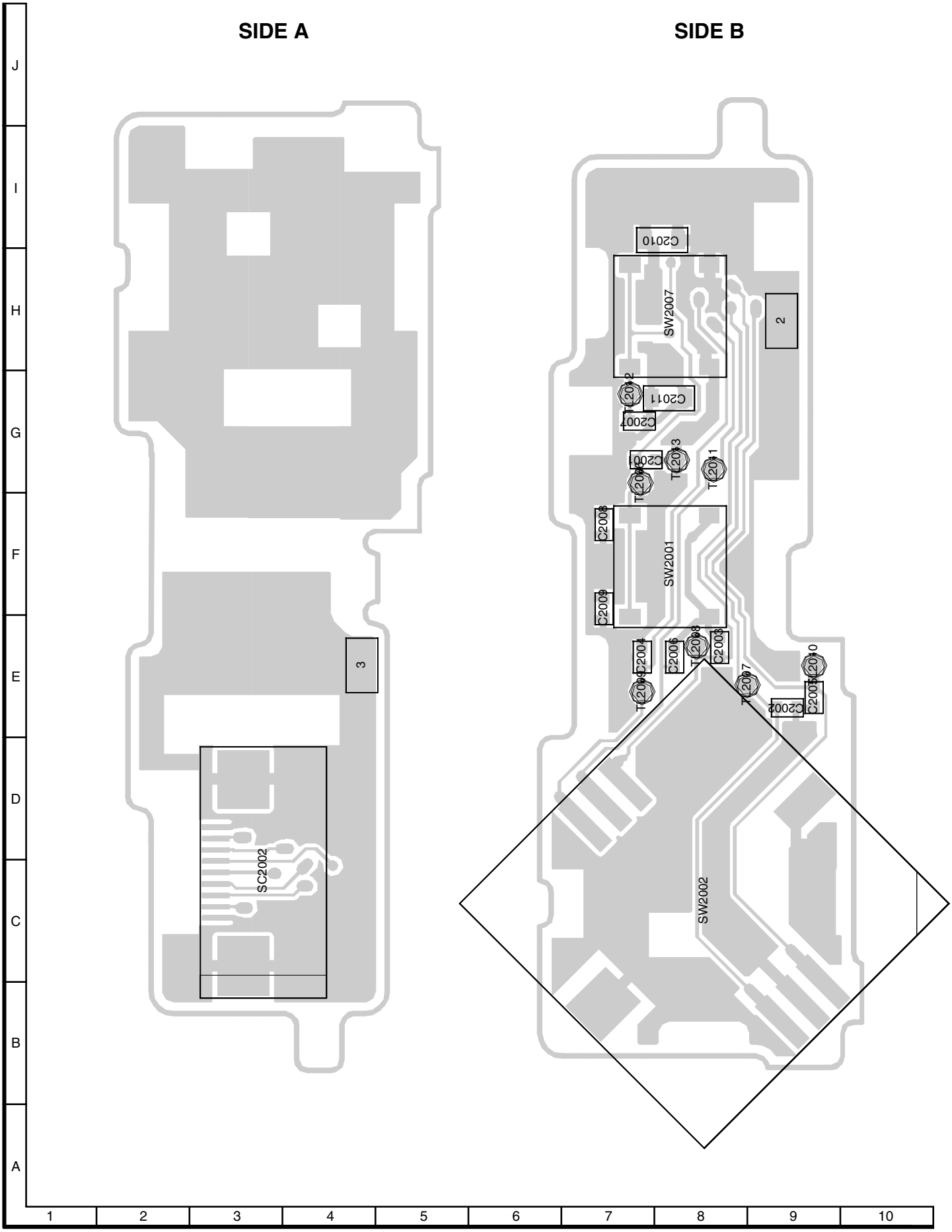
LITHIUM PWB

SIDE A



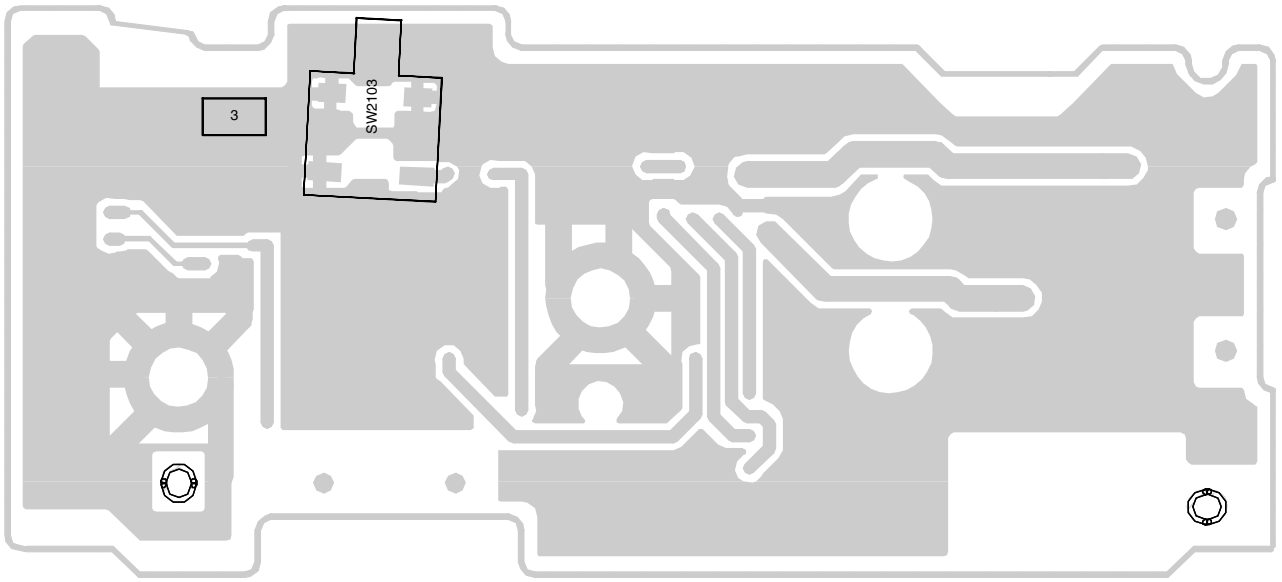
SIDE B

OPERATION PWB

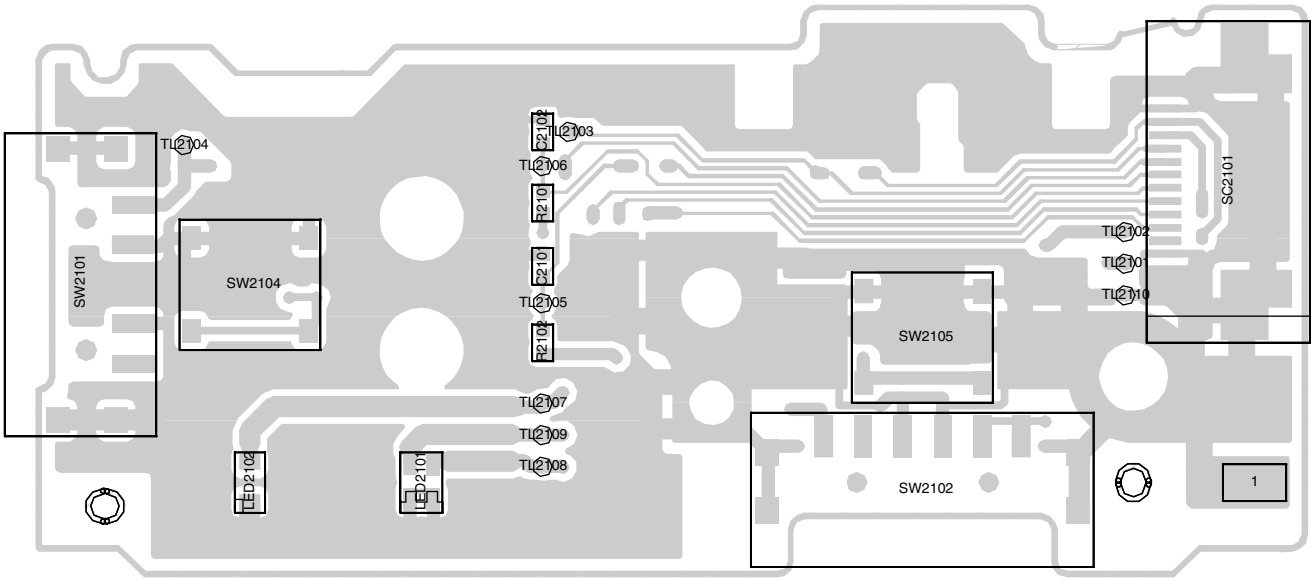


VCR OPERATION PWB

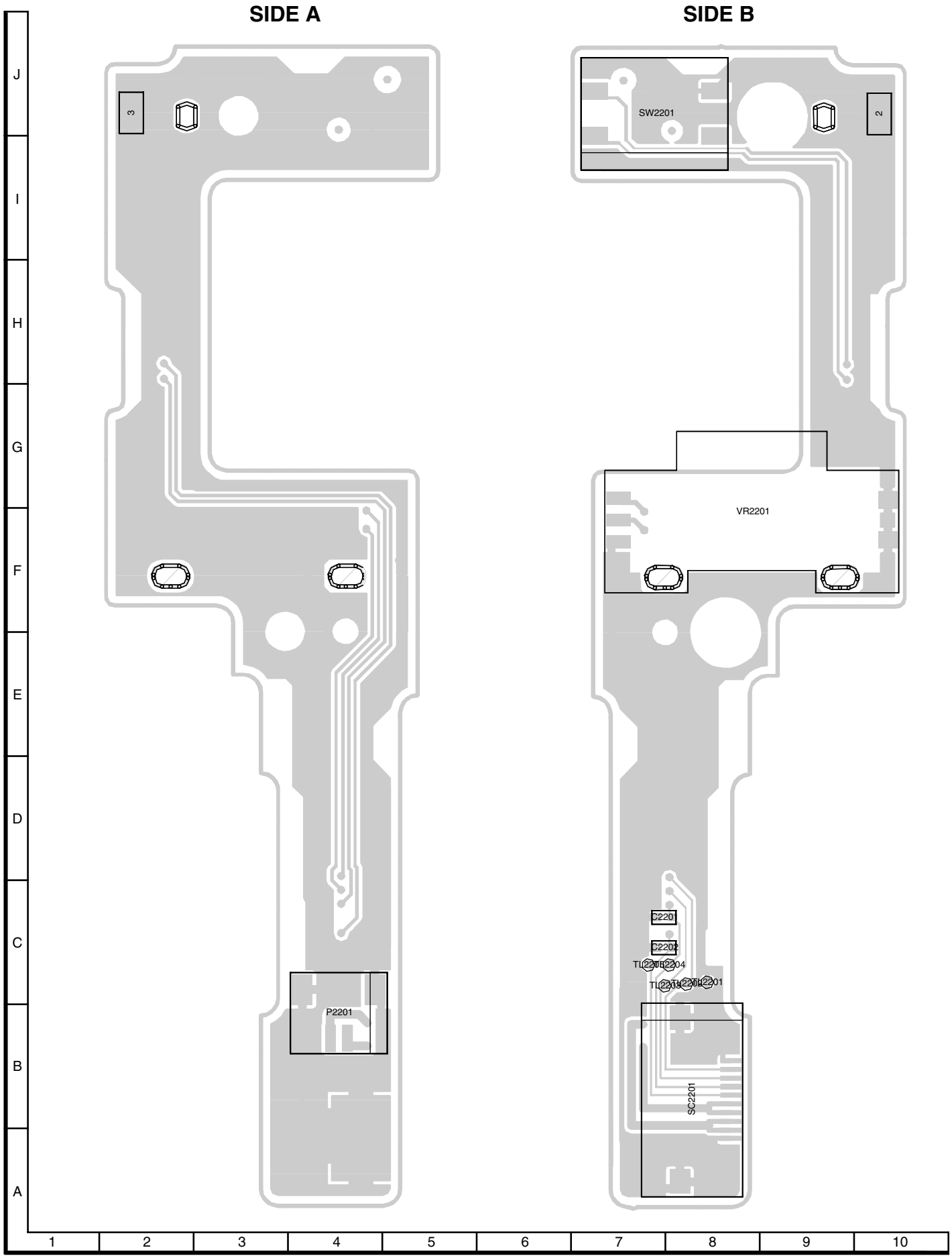
SIDE A



SIDE B



ZOOM SW PWB


SIDE A
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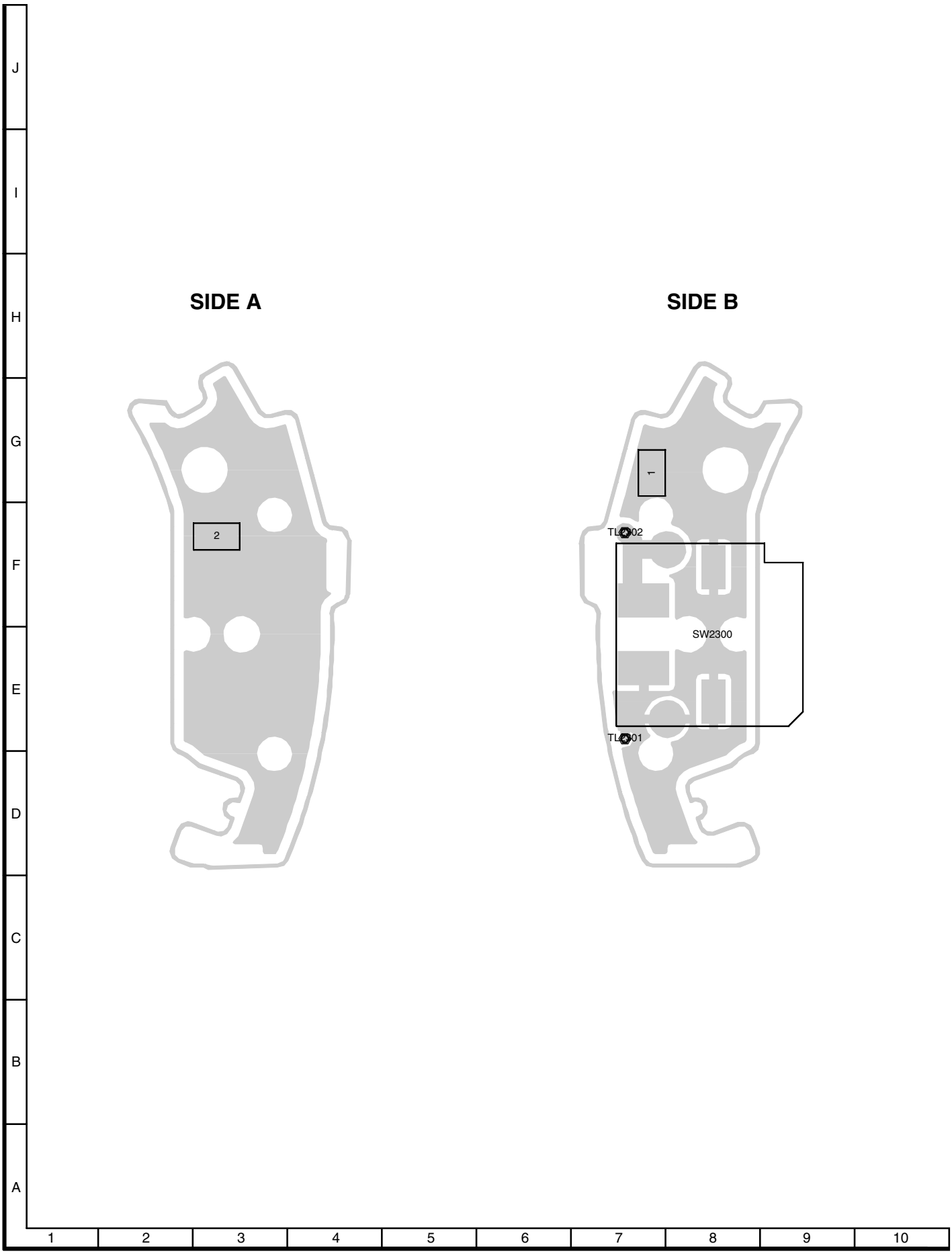
SW2201
VR2201
P2201
C2201
C2202
TL2201
SC2201

MECHA REVERSION DETECTION PWB



- M E M O -

17. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pièces marquéss "⚠" sont importantes pour maintenir la sècurité de l'appareil. Ne remplacer ces pieces que par des pièces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctinnement de l'appareil.

" HOW TO ORDER REPLACEMENT PARTS "

in USA: Contact your nearest SHARP Parts Distributor. For location of SHARP Parts Distributor,
Call Toll-free 1-IBE800-SHARP

in CANADA: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

⚠ MARK: SAFETY RELATED PARTS
⚠ PIECES: RELATIVES A LA SECURITE

PWB ASSEMBLY IS NOT REPLACEMENT ITEM
L'ASSEMBLANGE P.C.I. EST UN ARTICLE NON REMPLACABLE

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

DUNTKB722QA13	MAIN PWB Unit	—
DUNTKB724QA03	CCD PWB Unit	—
DUNTKB729QA13	SUB PWB Unit	—
DUNTKB726QA00	LCD PWB Unit	—
DUNTKB733QA00	HEAD AMP PWB Unit	—
DUNTKB731PM01	LITHIUM PWB Unit	—
DUNTKB730PM04	OPERATION PWB Unit	—
DUNTKB734PM01	VCR OPERATION PWB Unit	—
DUNTKB735PM00	ZOOM SW PWB Unit	—
DUNTKB732PM00	MECHA REVERSION DETECTION PWB Unit	—

Ref. No.	Part No.	★	Description	Code

DUNTKB722QA13
MAIN PWB UNIT

INTEGRATED CIRCUITS

IC201	RH-iX0850TAZZQ	IX0850TA, CAM ENG	BC
IC203	RH-iXA550WJZZY	IXA550WJ	AU
IC405	VHiNJU7015R-1Y	NJU7015R	AF
IC407	RH-iXA550WJZZY	IXA550WJ, Codec External Memory	AU
IC408	RH-iXA550WJZZY	IXA550WJ, ECC External Memory	AU
IC452	RH-iX0809TAZZQ	IX0809TA, Codec/ECC/ PCM/CLK,Gen/DIF	BM
IC701	RH-iXA531WJZZQ	IXA531WJ, Mec/System Micon	AX
IC703	RH-iXA532WJZZY	IXA532WJ, Character Generator	AL
IC704	VHiR2101S01-1Y	R2101S01	AH
IC705	VHiBR24L64F-1Y	BR24L64F, E²PROM	AK
IC706	VHiNJM2143R-1Y	NJM2143R, 2.8V/2.5V Reg	AE
IC900	VHiMB3881++-1Y	MB3881++, Power_CLT	AT
IC901	VHiNJM2143R-1Y	NJM2143R	AE
IC902	VHiNJM2143R-1Y	NJM2143R	AE
IC1401	VHiLA73070V-1Y	LA73070V, Video Out	AK
IC1431	VHiNJM2535V-1Y	NJM2535V, Video In SW	AE
IC1602	VHiPCM3008+-1Y	PCM3008+, 18Bit ADC/DAC	AN
IC3401	VHiBH7277KV-1Y	BH7277KV, EQ/PLL IC	AX
IC3402	VHiTLC2940/-1Y	TLC2940, VCO IC	AM
IC3403	VHiNC7SZ04P-1Y	NC7SZ04P, Inv IC	AD
IC3404	VHiADC8351C-1Y	ADC8351C, A/D Conv IC	AM
IC3405	VHi7SB3157P-1Y	7SB3157P	AE
IC3407	VHiNJU7008F-1Y	NJU7008F	AE
IC3701	RH-iXA530WJZZQ	IXA530WJ, Camera/ Card Micro Computer	BA
IC4401	RH-iXA204WJZZQ	IXA204WJ, Digital ADC/DAC Decoder	BB
IC4461	VHi7SB3157P-1Y	7SB3157P	AE
IC4701	VHiMB8346BV-1Y	MB8346BV	AN
IC8800	VHiMM1323XV-1Y	MM1323XV, LCD Interface	AN

TRANSISTORS

Q701	VSRT1N144U/-1Y	RT1N144U	AB
Q702	VSKTA2014EY-1Y	KTA2014EY	AB
Q704	VSKTA2014EY-1Y	KTA2014EY	AB
Q705	VSKTA2014EY-1Y	KTA2014EY	AB
Q900	VSXN09D61++-1Y	XN09D61++	AD
Q901	VS15C01SS++-1Y	15C01SS++	AC
Q902	VS12A01M+++-1Y	12A01M+++	AC
Q903	VSXN09D61++-1Y	XN09D61++	AD
Q904	VSXN09D61++-1Y	XN09D61++	AD
Q905	VSFMMT619//-1Y	FMMT619	AE
Q906	VSXN09D61++-1Y	XN09D61++	AD
Q907	VSXN09D61++-1Y	XN09D61++	AD
Q908	VSXN09D61++-1Y	XN09D61++	AD
Q911	VSXN09D61++-1Y	XN09D61++	AD
Q1431	VSXP0431N++-1Y	XP0431N++	AB
Q1434	VSXP6401///-1Y	XP6401	AC
Q1800	VSXP6401///-1Y	XP6401	AC
Q1801	VSXP6401///-1Y	XP6401	AC
Q1802	VSXP6401///-1Y	XP6401	AC
Q1900	VS2SA1989R/-1Y	2SA1989R	AB
Q1901	VSXP4316///-1Y	XP4316	AC
Q1902	VSMCH6617++-1Y	MCH6617++	AE
Q1903	VSXP1213///-1Y	XP1213	AC
Q1904	VSEMD12++++-1Y	EMD12++++	AC
Q1905	VSEMD12++++-1Y	EMD12++++	AC
Q1906	VS15C01M+++-1Y	15C01M+++	AC
Q1907	VSXP4501///-1Y	XP4501	AB
Q1908	VSXP4401+++-1Y	XP4401+++	AB
Q1909	VSXP4501///-1Y	XP4501	AB
Q1910	VS2SA1989R/-1Y	2SA1989R	AB
Q1911	VSXP4501///-1Y	XP4501	AB
Q1912	VSKTC4075EY-1Y	KTC4075EY	AB

Ref. No.	Part No.	★	Description	Code
Q1913	VSXP6401///-1Y		XP6401	AC
Q1914	VSXP4501///-1Y		XP4501	AB
Q1915	VSKRC404E++-1Y		KRC404E++	AB
Q1916	VSKTC4075EY-1Y		KTC4075EY	AB
Q1918	VSXP4313///-1Y		XP4313	AC
Q1920	VS12A01SS++-1Y		12A01SS++	AC
Q3320	VS15C01SS++-1Y		15C01SS++	AC
Q3401	VS2SC4738Y/-1Y		2SC4738Y	AA
Q3404	VS2SC4738Y/-1Y		2SC4738Y	AA
Q3406	VSXP05534//-1Y		XP05534	AD
Q4432	VSXP6401///-1Y		XP6401	AC
Q4461	VSKRC404E++-1Y		KRC404E++	AB
Q4481	VSXP4601///-1Y		XP4601	AC
Q4482	VSXP4601///-1Y		XP4601	AC
Q6801	VSXP1501///-1Y		XP1501	AC
Q7401	VSKTC4075EY-1Y		KTC4075EY	AB
Q7402	VSKRC404E++-1Y		KRC404E++	AB
Q7403	VSKTC4075EY-1Y		KTC4075EY	AB
Q7800	VSXP1501///-1Y		XP1501	AC
Q8800	VS3LN01S///-1Y		3LN01S	AC
Q8801	VSXP4601///-1Y		XP4601	AC
Q8802	VSXP4601///-1Y		XP4601	AC
Q8803	VSXP4601///-1Y		XP4601	AC
Q8804	VSXP4601///-1Y		XP4601	AC

DIODES

D471	VHDHVC362//-1Y		HVC362	AD
D472	VHDHVC359TR-1Y		HVC359TR	AD
D701	VHD1SS400++-1Y		1SS400++	AB
D900	RH-EX1394CEZZY		Zener Diode, EX1394CE	AB
D916	VHD1SS400++-1Y		1SS400++	AB
D960	VHDDAN217U+-1Y		DAN217U+	AB
D4451	VHDHVC375B+-1Y		HVC375B+	AD
D4452	VHDHVC375B+-1Y		HVC375B+	AD
D6800	VHDHVC202A+-1Y		HVC202A+	AC
D7810	VHDHVC202A+-1Y		HVC202A+	AC

PACKAGED CIRCUITS

TH1800	VHHS2103J16-1Y		Thermistor	AB
TH3401	VHHS1682J16-1Y		Thermistor	AB
X401	RCRSC0160TAZZY		Crystal, CRSC0160TA	AH
X701	RCRSCA054WJZZY		Crystal, CRSCA054WJ	AE
X702	RCRSC0183TAZZY		Crystal, CRSC0183TA	AH
X4451	RCRSCA048WJZZY		Crystal, CRSCA048WJ	AH

COILS

FL3401	RCiLF0408TAZZY		Coil, CiLF0408TA	AG
FL3402	RCiLF0408TAZZY		Coil, CiLF0408TA	AG
FL3403	RCiLF0409TAZZY		Coil, CiLF0409TA	AG
FL3702	RFiLZA007WJZZY		Filter, FiLZA007WJ	AD
L403	VPCEM4R7MR40NY		Peaking, 4.7µH	AC
L471	VPD9M100J1R7NY		Peaking, 10µH	AC
L701	VPCEM100MR70NY		Peaking, 10µH	AC
L900	RCiLP0323TAZZY		Coil, 22µH	AD
L901	RCiLPA010WJZZY		Coil, 15µH	AD
L902	VPCEM2R2MR23NY		Peaking, 2.2µH	AC
L903	VPCEM2R2MR23NY		Peaking, 2.2µH	AC
L904	VPCLN2R2MR13NY		Peaking, 2.2µH	AB
L905	VPCEM2R2MR23NY		Peaking, 2.2µH	AC
L907	RCiLPA010WJZZY		Coil, 15µH	AD
L908	VPCEM2R2MR23NY		Peaking, 2.2µH	AC
L909	VPCEM2R2MR23NY		Peaking, 2.2µH	AC
L910	VPCEM2R2MR23NY		Peaking, 2.2µH	AC
L911	RCiLPA010WJZZY		Coil, 15µH	AD
L912	VPCCM2R2MR09NY		Peaking, 2.2µH	AC
L915	RCiLP0323TAZZY		Coil, 22µH	AD
L916	RCiLPA012WJZZY		Coil, 33µH	AD
L917	RCiLPA012WJZZY		Coil, 33µH	AD
L918	RCiLPA010WJZZY		Coil, 15µH	AD
L919	VPCLN2R2MR13NY		Peaking, 2.2µH	AB
L923	RCiLPA010WJZZY		Coil, 15µH	AD
L931	RCiLPA125WJZZY		Coil, CiLPA125WJ	AD
L1404	VPCEM470M3R7NY		Peaking, 47µH	AC
L1431	VPCEM470M3R7NY		Peaking, 47µH	AC
L1601	VPCEM100MR70NY		Peaking, 10µH	AC
L1800	VPCEM470M3R7NY		Peaking, 47µH	AC
L1801	VPCCM100KR22NY		Peaking, 10µH	AB
L3401	RCiLP0276TAZZY		Coil, CiLP0276TA	AC
L3404	VPCEM4R7MR40NY		Peaking, 4.7µH	AC
L3405	VPCEM4R7MR40NY		Peaking, 4.7µH	AC
L3701	VPCEM4R7MR40NY		Peaking, 4.7µH	AC
L3702	VPCEM4R7MR40NY		Peaking, 4.7µH	AC
L4404	VPCEM100MR70NY		Peaking, 10µH	AC
L4406	VPCEM100MR70NY		Peaking, 10µH	AC
L4451	RCiLPA127WJZZY		Coil, CiLPA127WJ	AC
L6800	VPD9M6R8J1R8NY		Peaking, 6.8µH	AC
L7400	VPCEM100MR70NY		Peaking, 10µH	AC
L7800	VPCEM100MR70NY		Peaking, 10µH	AC
L7810	VPD9M180J2R4NY		Peaking, 18µH	AC
L8800	VPCEM470M3R7NY		Peaking, 47µH	AC
L8801	VPCEM470M3R7NY		Peaking, 47µH	AC
L8802	VPCEM470M3R7NY		Peaking, 47µH	AC

CAPACITORS

C201	VCSATA0JJ226MY		22	6.3V Tantalum	AD
C202	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C203	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C204	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C205	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C206	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C207	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C208	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C211	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C212	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C213	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C214	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C215	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C217	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C218	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C220	VCCCCZ1HH221JY		220p	50V Ceramic	AB
C401	RC-KZ0083TAZZY		2.2	10V Ceramic	AC
C402	RC-KZ0083TAZZY		2.2	10V Ceramic	AC
C404	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C405	VCKYCZ1AB473KY		0.047	10V Ceramic	AB
C407	VCKYCY0JB105KY		1	6.3V Ceramic	AC
C410	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C411	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C412	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C413	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C414	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C415	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C417	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C418	VCCCCZ1HH100DY		10p	50V Ceramic	AB
C419	VCCCCZ1HH100DY		10p	50V Ceramic	AB
C420	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C421	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C423	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C424	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C425	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C430	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C432	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C456	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C460	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C462	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C463	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C465	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C473	VCKYCZ1AB104KY		0.1	10V Ceramic	AB
C474	VCKYCZ1AB104KY		0.1	10V Ceramic	AB
C475	VCKYCZ1HB221KY		220p	50V Ceramic	AA
C476	VCKYCZ1HB221KY		220p	50V Ceramic	AA
C477	VCKYCZ1HB221KY		220p	50V Ceramic	AA
C478	VCKYCZ1HB221KY		220p	50V Ceramic	AA
C701	VCKYCY1CB104KY		0.1	16V Ceramic	AB
C702	VCKYCY0JF105ZY		1	6.3V Ceramic	AB
C703	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C704	VCKYCY0JB105KY		1	6.3V Ceramic	AC
C705	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C706	RC-KZA067WJZZY		4.7	10V Ceramic	AB
C708	VCKYCZ1CB103KY		0.01	16V Ceramic	AB
C709	VCKYCZ1HB102KY		1000p	50V Ceramic	AB

Ref. No.	Part No.	★	Description			Code
C710	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C711	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C712	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C713	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C716	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C719	VCCCCZ1HH270JY		27p	50V	Ceramic	AB
C720	VCCCCZ1HH270JY		27p	50V	Ceramic	AB
C721	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C722	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C723	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C724	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C725	VCKYCZ1EB682KY		6800p	25V	Ceramic	AB
C726	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C727	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C728	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C729	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C730	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C731	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C732	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C733	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C734	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C735	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C737	VCKYCZ1EB682KY		6800p	25V	Ceramic	AB
C904	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C905	VCKYCZ0JB224KY		0.22	6.3V	Ceramic	AB
C906	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C907	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C908	VCKYCZ1AB473KY		0.047	10V	Ceramic	AB
C910	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C911	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C912	VCKYCY1CB104KY		0.1	16V	Ceramic	AB
C913	VCKYCZ1HB222KY		2200p	50V	Ceramic	AB
C914	VCCCCZ1HH101JY		100p	50V	Ceramic	AB
C915	VCKYCY1AB224KY		0.22	10V	Ceramic	AB
C916	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C917	VCKYCZ1HB221KY		220p	50V	Ceramic	AA
C918	VCKYCZ1HB221KY		220p	50V	Ceramic	AA
C919	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C920	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C921	VCKYCY1CB104KY		0.1	16V	Ceramic	AB
C922	VCKYCY1CB104KY		0.1	16V	Ceramic	AB
C923	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C924	VCKYCZ1HB471KY		470p	50V	Ceramic	AB
C926	VCKYCY1EB223KY		0.022	25V	Ceramic	AA
C928	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C929	RC-KZA066WJZZY		1	25V	Ceramic	AB
C930	RC-KZA002WJZZY		4.7	16V	Ceramic	AC
C931	RC-KZ0075TAZZY		2.2	16V	Ceramic	AC
C932	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C933	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C934	RC-KZ0083TAZZY		2.2	10V	Ceramic	AC
C936	RC-KZA069WJZZY		4.7	10V	Ceramic	AB
C938	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C939	VCKYTV1AB105KY		1	10V	Ceramic	AC
C943	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C946	VCKYTV1AB105KY		1	10V	Ceramic	AC
C948	RC-KZA069WJZZY		4.7	10V	Ceramic	AB
C949	VCKYTV1AB105KY		1	10V	Ceramic	AC
C951	VCKYTV1AB105KY		1	10V	Ceramic	AC
C952	RC-KZ0083TAZZY		2.2	10V	Ceramic	AC
C953	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C954	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C955	RC-KZ0075TAZZY		2.2	16V	Ceramic	AC
C956	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C957	VCKYTV1AB105KY		1	10V	Ceramic	AC
C960	RC-KZA002WJZZY		4.7	16V	Ceramic	AC
C962	RC-KZA066WJZZY		1	25V	Ceramic	AB
C966	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C970	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C971	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C972	RC-KZA002WJZZY		4.7	16V	Ceramic	AC
C973	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C974	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C978	RC-KZA066WJZZY		1	25V	Ceramic	AB
C980	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C981	RC-KZ0075TAZZY		2.2	16V	Ceramic	AC
C982	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C983	VCKYTV1AB105KY		1	10V	Ceramic	AC
C990	RC-KZ0075TAZZY		2.2	16V	Ceramic	AC
C991	RC-KZA041WJZZY		10	10V	Ceramic	AC
C992	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C993	VCKYCY1AB224KY		0.22	10V	Ceramic	AB
C1402	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C1406	VCSATE0JJ107MY		100	6.3V	Tantalum	AE
C1407	VCSATA0JJ336MY		33	6.3V	Tantalum	AD
C1408	VCKYCY0JF105ZY		1	6.3V	Ceramic	AB
C1409	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C1410	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1411	VCSATE0JJ107MY		100	6.3V	Tantalum	AE
C1412	VCSATA0JJ336MY		33	6.3V	Tantalum	AD
C1416	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1417	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1418	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1431	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C1432	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1438	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1440	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1603	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C1604	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C1605	RC-KZ0083TAZZY		2.2	10V	Ceramic	AC
C1608	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C1610	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1611	VCKYCY1AB474KY		0.47	10V	Ceramic	AC
C1617	VCKYCY1AB474KY		0.47	10V	Ceramic	AC
C1800	RC-KZA067WJZZY		4.7	10V	Ceramic	AB
C1801	VCCCCZ1HH180JY		18p	50V	Ceramic	AB
C1802	VCCCCZ1HH680JY		68p	50V	Ceramic	AB
C1803	VCCCCZ1HH180JY		18p	50V	Ceramic	AB
C1804	VCCCCZ1HH680JY		68p	50V	Ceramic	AB
C1805	VCCCCZ1HH180JY		18p	50V	Ceramic	AB
C1806	VCCCCZ1HH680JY		68p	50V	Ceramic	AB
C1811	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1815	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C1900	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1901	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1902	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C1903	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1904	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1905	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1906	RC-KZA069WJZZY		4.7	10V	Ceramic	AB
C1907	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C1908	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1909	RC-KZ1025CEZZY		1	10V	Ceramic	AB
C1910	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1911	RC-KZA069WJZZY		4.7	10V	Ceramic	AB
C1912	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1913	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1914	VCKYTV1CB105KY		1	16V	Ceramic	AC
C1915	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1916	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C1917	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C1918	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C3320	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3321	VCKYTV1CB105KY		1	16V	Ceramic	AC
C3401	VCCCCZ1HH390JY		39p	50V	Ceramic	AB
C3402	VCCCCZ1HH100DY		10p	50V	Ceramic	AB
C3403	VCCCCZ1HH100DY		10p	50V	Ceramic	AB
C3405	VCCCCZ1HH820JY		82p	50V	Ceramic	AB
C3406	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C3407	VCCCCZ1HH101JY		100p	50V	Ceramic	AB
C3408	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3409	VCKYCZ1HB471KY		470p	50V	Ceramic	AB
C3410	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3411	VCKYCZ1HB471KY		470p	50V	Ceramic	AB
C3412	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3413	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3414	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3415	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3416	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C3417	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB

Ref. No.	Part No.	★		Description	Code
C3418	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3419	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3421	VCCCCZ1HH121JY	120p	50V	Ceramic	AB
C3423	VCCCCZ1HH121JY	120p	50V	Ceramic	AB
C3424	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3426	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3428	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C3429	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C3430	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3431	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3432	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3433	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3434	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3436	VCSATA0YJ336MY	33	7V	Tantalum	AD
C3442	VCCCCZ1HH180JY	18p	50V	Ceramic	AB
C3443	VCCCCZ1HH220JY	22p	50V	Ceramic	AB
C3444	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3451	VCCCCZ1HH100DY	10p	50V	Ceramic	AB
C3452	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3454	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C3455	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3456	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C3457	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3458	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3462	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3465	VCCCCZ1HH100DY	10p	50V	Ceramic	AB
C3467	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3470	VCCCCZ1HH5R0CY	5p	50V	Ceramic	AA
C3471	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3473	VCSATA0YJ336MY	33	7V	Tantalum	AD
C3474	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3475	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3476	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3477	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C3478	VCCCCZ1HH390JY	39p	50V	Ceramic	AB
C3479	VCKYCZ0JB224KY	0.22	6.3V	Ceramic	AB
C3481	VCCCCZ1HH100DY	10p	50V	Ceramic	AB
C3701	VCKYTV1AB105KY	1	10V	Ceramic	AC
C3702	VCKYTV1AB105KY	1	10V	Ceramic	AC
C3704	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C3706	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C3712	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C3714	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3716	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3717	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4401	RC-KZ0083TAZZY	2.2	10V	Ceramic	AC
C4402	RC-KZ0083TAZZY	2.2	10V	Ceramic	AC
C4403	RC-KZ0083TAZZY	2.2	10V	Ceramic	AC
C4404	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C4405	RC-KZ0083TAZZY	2.2	10V	Ceramic	AC
C4406	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C4407	VCKYCZ0JB224KY	0.22	6.3V	Ceramic	AB
C4408	VCKYCZ0JB224KY	0.22	6.3V	Ceramic	AB
C4409	VCKYCZ0JB224KY	0.22	6.3V	Ceramic	AB
C4410	VCKYCY1CB104KY	0.1	16V	Ceramic	AB
C4413	VCKYCY1CB104KY	0.1	16V	Ceramic	AB
C4414	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C4415	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C4416	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4417	VCCCCZ1HH221JY	220p	50V	Ceramic	AB
C4418	VCCCCZ1HH221JY	220p	50V	Ceramic	AB
C4419	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4420	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4421	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4422	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4423	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4424	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4426	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4427	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4428	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4435	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C4436	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4451	VCCCCZ1HH390JY	39p	50V	Ceramic	AB
C4454	VCCCCZ1HH390JY	39p	50V	Ceramic	AB
C4461	VCKYCY0JB105KY	1	6.3V	Ceramic	AC

Ref. No.	Part No.	★		Description	Code
C4462	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C4463	VCKYCZ1EB682KY	6800p	25V	Ceramic	AB
C4481	VCSATA0JJ106MY	10	6.3V	Tantalum	AD
C4482	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4483	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C4485	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C4702	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C4703	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C6800	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C6801	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6802	VCCCCZ1HH101JY	100p	50V	Ceramic	AB
C6803	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6804	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C6805	VCCCCZ1HH390JY	39p	50V	Ceramic	AB
C6806	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6810	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6811	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6812	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6813	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C6814	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C6815	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C6816	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C7400	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C7401	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C7404	VCKYCZ1EB472KY	4700p	25V	Ceramic	AB
C7413	VCKYCZ1HB221KY	220p	50V	Ceramic	AA
C7414	VCCCCZ1HH330JY	33p	50V	Ceramic	AB
C7417	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C7800	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C7801	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C7802	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C7803	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C7804	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C7805	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C7806	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C7807	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C7808	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C7809	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C7810	VCCCCZ1HH470JY	47p	50V	Ceramic	AB
C7812	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C7827	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C7828	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C7829	VCCCCZ1HH101JY	100p	50V	Ceramic	AB
C7830	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C8800	VCKYCZ1HF103ZY	0.01	50V	Ceramic	AB
C8801	VCKYCY0JF105ZY	1	6.3V	Ceramic	AB
C8802	VCKYTV1CB105KY	1	16V	Ceramic	AC
C8803	VCKYCZ1HF103ZY	0.01	50V	Ceramic	AB
C8804	VCKYTV1AB105KY	1	10V	Ceramic	AC
C8805	RC-KZA067WJZZY	4.7	10V	Ceramic	AB
C8806	VCKYTV1EB104KY	0.1	25V	Ceramic	AB
C8807	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C8808	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C8809	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C8813	VCKYTV1CB105KY	1	16V	Ceramic	AC
C8816	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C8822	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB

RESISTORS

R219	VRS-CZ1JF222JY	2.2k	1/16W	Metal Oxide	AA
R245	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R246	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R401	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R402	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R403	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R404	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R406	VRS-CZ1JF101JY	100	1/16W	Metal Oxide	AA
R407	VRS-CZ1JF153JY	15k	1/16W	Metal Oxide	AA
R408	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R411	VRS-CZ1JF154JY	150k	1/16W	Metal Oxide	AA
R412	VRS-CZ1JF334JY	330k	1/16W	Metal Oxide	AA
R413	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R416	VRS-CZ1JF823JY	82k	1/16W	Metal Oxide	AA
R418	VRS-CZ1JF101JY	100	1/16W	Metal Oxide	AA
R428	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R432	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R462	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R463	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R467	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R468	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R471	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R477	VRS-CZ1JF823JY	82k	1/16W Metal Oxide	AA
R478	VRS-CZ1JF823JY	82k	1/16W Metal Oxide	AA
R701	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R702	VRS-CZ1JF750JY	75	1/16W Metal Oxide	AA
R703	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R704	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R705	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA
R706	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R707	VRS-CZ1JF184JY	180k	1/16W Metal Oxide	AA
R708	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R709	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R710	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R711	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R712	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R713	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R714	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R715	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R716	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R717	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R718	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R719	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R720	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R721	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R722	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R723	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R724	VRS-CZ1JF823DY	82k	1/16W Metal Oxide	AA
R725	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R726	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R728	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R729	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R730	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R731	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R732	VRS-CZ1JF474DY	470k	1/16W Metal Oxide	AA
R733	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R734	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R735	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R736	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R737	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R738	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R739	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R741	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R742	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R743	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R744	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R745	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R746	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R747	VRS-CZ1JF184JY	180k	1/16W Metal Oxide	AA
R748	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R749	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R750	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R751	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R752	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R753	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R754	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R755	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R756	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R757	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R758	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R759	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R760	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R761	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R762	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R764	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R765	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R766	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R767	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R771	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R772	VRS-CZ1JF474JY	470k	1/16W Metal Oxide	AA
R779	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R780	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R782	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R902	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R903	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R904	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R905	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R906	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R907	VRS-CZ1JF822JY	8.2k	1/16W Metal Oxide	AA
R909	VRS-CZ1JF562DY	5.6k	1/16W Metal Oxide	AA
R910	VRS-CZ1JF272DY	2.7k	1/16W Metal Oxide	AB
R912	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R914	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R917	VRS-CZ1JF102DY	1k	1/16W Metal Oxide	AA
R918	VRS-CZ1JF472DY	4.7k	1/16W Metal Oxide	AB
R919	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R920	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R924	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R926	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
R927	VRS-CZ1JF563DY	56k	1/16W Metal Oxide	AA
R928	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R929	VRS-CZ1JF683DY	68k	1/16W Metal Oxide	AA
R930	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R931	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R932	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R933	VRS-CZ1JF683JY	68k	1/16W Metal Oxide	AA
R934	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R935	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R936	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R937	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R938	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R939	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R940	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R941	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R942	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R943	VRS-CZ1JF303DY	30k	1/16W Metal Oxide	AA
R946	VRS-CZ1JF163DY	16k	1/16W Metal Oxide	AA
R948	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R949	VRS-CZ1JF681DY	680	1/16W Metal Oxide	AB
R951	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R952	VRS-CZ1JF223DY	22k	1/16W Metal Oxide	AB
R954	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
R957	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
R959	VRS-CZ1JF123DY	12k	1/16W Metal Oxide	AA
R960	VRS-CZ1JF182DY	1.8k	1/16W Metal Oxide	AA
R962	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R965	VRS-CZ1JF122DY	1.2k	1/16W Metal Oxide	AA
R966	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R968	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R970	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R972	VRS-CZ1JF133DY	13k	1/16W Metal Oxide	AA
R973	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R974	VRS-CZ1JF102DY	1k	1/16W Metal Oxide	AA
R975	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R977	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R979	VRS-CZ1JF104DY	100k	1/16W Metal Oxide	AA
R980	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R982	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA
R983	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA
R987	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R988	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R990	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R1402	VRS-CZ1JF470JY	47	1/16W Metal Oxide	AA
R1403	VRS-CZ1JF470JY	47	1/16W Metal Oxide	AA
R1404	VRS-CZ1JF270JY	27	1/16W Metal Oxide	AA
R1405	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1406	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1413	VRS-CZ1JF470JY	47	1/16W Metal Oxide	AA
R1414	VRS-CZ1JF270JY	27	1/16W Metal Oxide	AA
R1419	VRS-CZ1JF270JY	27	1/16W Metal Oxide	AA
R1431	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1438	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1439	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R1440	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1441	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1442	VRS-CZ1JF750JY	75	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1462	VRS-CZ1JF474DY	470k	1/16W Metal Oxide	AA
R1800	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R1801	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1802	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1804	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1806	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R1807	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1808	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1810	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1812	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R1813	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1814	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R1816	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1823	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R1824	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1825	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R1826	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1900	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R1901	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R1902	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R1903	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1904	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1905	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R1906	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R1907	VRS-CZ1JF222DY	2.2k	1/16W Metal Oxide	AA
R1908	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1909	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R1910	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R1911	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R1912	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R1913	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R1914	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1915	VRS-CZ1JF363DY	36k	1/16W Metal Oxide	AA
R1916	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R1917	VRS-CZ1JF163JY	16k	1/16W Metal Oxide	AA
R1918	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1919	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R1920	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
R1921	VRS-CZ1JF243DY	24k	1/16W Metal Oxide	AA
R1922	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1923	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1924	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R1925	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1926	VRS-CZ1JF332DY	3.3k	1/16W Metal Oxide	AA
R1927	VRS-CZ1JF561DY	560	1/16W Metal Oxide	AA
R1928	VRS-CZ1JF182DY	1.8k	1/16W Metal Oxide	AA
R1929	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R1931	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1932	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1933	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1934	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1935	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1936	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1937	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1938	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R1939	VRS-CZ1JF562DY	5.6k	1/16W Metal Oxide	AA
R1940	VRS-CZ1JF203DY	20k	1/16W Metal Oxide	AA
R1943	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R1944	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
R1945	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R1946	VRS-CZ1JF272DY	2.7k	1/16W Metal Oxide	AB
R1947	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1993	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R3320	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R3321	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R3401	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA
R3402	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R3403	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R3404	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA
R3405	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R3406	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R3407	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R3408	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3409	VRS-CZ1JF121JY	120	1/16W Metal Oxide	AA
R3410	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R3411	VRS-CZ1JF391JY	390	1/16W Metal Oxide	AA
R3412	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R3413	VRS-CZ1JF391JY	390	1/16W Metal Oxide	AA
R3414	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3415	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R3416	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R3417	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R3418	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA
R3419	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R3420	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R3421	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R3422	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R3423	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R3424	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R3425	VRS-CZ1JF122DY	1.2k	1/16W Metal Oxide	AA
R3426	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R3427	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R3428	VRS-CZ1JF273DY	27k	1/16W Metal Oxide	AA
R3429	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R3430	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R3431	VRS-CZ1JF824JY	820k	1/16W Metal Oxide	AA
R3432	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
R3433	VRS-CZ1JF335JY	3.3M	1/16W Metal Oxide	AA
R3434	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R3435	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R3436	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R3437	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R3439	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3440	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3442	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R3445	VRS-CZ1JF122DY	1.2k	1/16W Metal Oxide	AA
R3451	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA
R3452	VRS-CZ1JF820JY	82	1/16W Metal Oxide	AA
R3454	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3457	VRS-CZ1JF820JY	82	1/16W Metal Oxide	AA
R3462	VRS-CZ1JF271JY	270	1/16W Metal Oxide	AA
R3463	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R3468	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
R3469	VRS-CZ1JF390JY	39	1/16W Metal Oxide	AA
R3470	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R3471	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R3472	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R3473	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R3478	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R3479	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R3480	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R3481	VRS-CZ1JF680JY	68	1/16W Metal Oxide	AB
R3482	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R3486	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3487	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R3488	VRS-CZ1JF681DY	680	1/16W Metal Oxide	AB
R3489	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R3492	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R3493	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R3495	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R3496	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R3499	VRS-CZ1JF271JY	270	1/16W Metal Oxide	AA
R3701	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3703	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3704	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3705	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R3706	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA
R3707	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R3708	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3709	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3710	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3711	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3712	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3713	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3717	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA
R3738	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R4401	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4402	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4403	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4404	VRS-CZ1JF472DY	4.7k	1/16W Metal Oxide	AB

Ref. No.	Part No.	★	Description	Code
R4414	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4415	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4435	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R4436	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R4437	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R4451	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R4453	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R4454	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R4456	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R4460	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4461	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R4462	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R4463	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R4466	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R4471	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R4472	VRS-CZ1JF152DY	1.5k	1/16W Metal Oxide	AA
R4485	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA
R4486	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA
R4487	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R4488	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R4494	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4495	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R6802	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R6803	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R6804	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R6805	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R6806	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA
R6807	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R6808	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R6809	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R6816	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R6817	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R6818	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R6819	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R6820	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R7401	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R7402	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R7403	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R7413	VRS-CZ1JF512DY	5.1k	1/16W Metal Oxide	AA
R7415	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R7416	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R7417	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R7418	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R7419	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R7420	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R7422	VRS-CZ1JF392DY	3.9k	1/16W Metal Oxide	AA
R7423	VRS-CZ1JF392DY	3.9k	1/16W Metal Oxide	AA
R7424	VRS-CZ1JF242DY	2.4k	1/16W Metal Oxide	AA
R7800	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R7811	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R7819	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R7820	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R7826	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R7827	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R7828	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R7829	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R7830	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R7831	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R7832	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R7833	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA
R7834	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R7836	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R7837	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R7838	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R7839	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R8800	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R8801	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R8804	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R8805	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R8806	VRS-CZ1JF563JY	56k	1/16W Metal Oxide	AA
R8807	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R8808	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R8809	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R8810	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R8814	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
R8815	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R8816	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R8817	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
R8818	VRS-CZ1JF151DY	150	1/16W Metal Oxide	AA
R8819	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R8820	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R8825	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R8826	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R8827	VRS-CZ1JF393DY	39k	1/16W Metal Oxide	AA
R8828	VRS-CZ1JF303DY	30k	1/16W Metal Oxide	AA
R8832	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R8834	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R8835	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R8836	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R8838	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R8839	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R8840	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R8841	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R8842	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA

BALUNES

FB201	RBLN-0049TAZZY	Balun, BLN-0049TA	AA
FB202	RBLN-0049TAZZY	Balun, BLN-0049TA	AA
FB203	RBLN-0049TAZZY	Balun, BLN-0049TA	AA
FB204	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB415	RBLN-0257TAZZY	Balun, BLN-0257TA	AB
FB456	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB900	RBLN-0119TAZZY	Balun, BLN-0119TA	AC
FB901	RBLN-0119TAZZY	Balun, BLN-0119TA	AC
FB4405	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB4461	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB7401	RBLN-0102TAZZY	Balun, BLN-0102TA	AB
FB8800	RBLN-0102TAZZY	Balun, BLN-0102TA	AB

MISCELLANEOUS PARTS

P1201	QPLGN0276TAZZY	Plug, 2Pin	AD
P3301	QPLGN0576TAZZY	Plug, 5Pin	AC
P8800	QPLGN0274TAZZY	Plug, 2Pin	AC
P3303	QCNCMA088WJZZY	Connector, 30Pin	AF
RMC701	RRMCUA012WJZZ	Remote Receiver	AF
SC1201	QCNCW8089TAZZY	Connector, 80Pin	AK
SC1202	QCNCW3396TAZZY	Connector, 33Pin	AG
SC1800	QCNCW1895TAZZY	Connector, 18Pin	AE
SC1801	QCNCW1894TAZZY	Connector, 18Pin	AE
SC3301	QCNCWA082WJZZY	Connector, 33Pin	AG
SC3302	QCNCWA041WJZZY	Connector, 33Pin	AE
SC8800	QCNCWA081WJZZY	Connector, 27Pin	AG

DUNTKB724QA03
CCD PWB UNIT

INTEGRATED CIRCUITS

IC21	VHiCXD2489R-1Y	CXD2489R	AW
IC101	VHiHD49334N-1Y	HD49334N	AP

TRANSISTOR

Q1	VS2SC5384C/-1Y	2SC5384C	AB

DIODE

D1	VHD1SS400++-1Y	1SS400++	AB

PACKAGED CIRCUIT

X1	RCRSCA050WJZZY	Crystal, CRSCA050WJ	AG

COILS

L22	VPCEM100MR70NY	Peaking, 10µH	AC
L23	VPCEM100MR70NY	Peaking, 10µH	AC
L101	VPCEM100MR70NY	Peaking, 10µH	AC
L102	VPCEM101M7R0NY	Peaking, 100µH	AB

CAPACITORS

C1	VCSATA1CJ106MY	10	16V	Tantalum	AD

Ref. No.	Part No.	★	Description			Code
C2	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C3	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C4	VCKYCZ1EB103KY		0.01	25V	Ceramic	AA
C5	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C6	VCKYCY1EB104KY		0.1	25V	Ceramic	AB
C7	RC-KZA079WJZZY		4.7	25V	Ceramic	AC
C8	RC-KZA080WJZZY		1	35V	Ceramic	AB
C9	VCKYCZ1EB103KY		0.01	25V	Ceramic	AA
C21	RC-KZA079WJZZY		4.7	25V	Ceramic	AC
C22	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C23	RC-KZA079WJZZY		4.7	25V	Ceramic	AC
C24	VCSATA1CJ106MY		10	16V	Tantalum	AD
C25	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C27	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C29	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C30	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C31	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C32	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C33	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C34	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C37	VCSATA0YJ156MY		15	6.3V	Tantalum	AD
C40	VCSATA0YJ336MY		33	7V	Tantalum	AD
C51	VCCCCZ1HH100DY		10p	50V	Ceramic	AB
C52	VCCCCZ1HH100DY		10p	50V	Ceramic	AB
C101	VCKYCZ1CB153KY		0.015	16V	Ceramic	AB
C103	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C104	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C105	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C106	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C107	VCKYTV1CB105KY		1	16V	Ceramic	AC
C108	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C109	VCSATA0JJ156MY		15	6.3V	Tantalum	AC
C110	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C111	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C113	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C114	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C115	RC-KZA069WJZZY		4.7	10V	Ceramic	AB
RESISTORS						
R1	VRS-CZ1JF105JY		1M	1/16W	Metal Oxide	AA
R4	VRS-CZ1JF222JY		2.2k	1/16W	Metal Oxide	AA
R6	VRS-CZ1JF104JY		100k	1/16W	Metal Oxide	AA
R25	VRS-CZ1JF102JY		1k	1/16W	Metal Oxide	AA
R30	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R33	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R34	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R37	VRS-CZ1JF102JY		1k	1/16W	Metal Oxide	AA
R52	VRS-CZ1JF101DY		100	1/16W	Metal Oxide	AA
R103	VRS-CZ1JF333JY		33k	1/16W	Metal Oxide	AA
R104	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R105	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R106	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R107	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R108	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R109	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R110	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R111	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R112	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R113	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R1019	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
BALUN						
R22	RBLN-0257TAZZY		Balun, BLN-0257TA			AB
MISCELLANEOUS PARTS						
SC1001	QCNCWA082WJZZY		Connector, 33Pin			AG
TP1001	QLUGZA001WJZZY		Lug			AB
TP1002	QLUGZA001WJZZY		Lug			AB
TP1003	QLUGZA001WJZZY		Lug			AB

Ref. No.	Part No.	★	Description	Code
DUNTKB729QA13 SUB PWB UNIT				
INTEGRATED CIRCUITS				
⚠ CP1	QPRTRA002WJZZY		PRTRA002WJ	AD
⚠ CP2	VHiCCP2B25/-1Y		CCP2B25	AD
⚠ CP3	VHiCCP2B25/-1Y		CCP2B25	AD
IC501	RH-iXA526WJZZQ		IXA526WJ	AP
IC503	VHiMB8346BV-1Y		MB88346BV	AN
IC551	VHiUPD16835-1Y		UPD16835, Lens Driver	AM
IC600	VHiLA74206W-1Q		LA74206W	AP
IC2502	VHiNJ12902V-1Y		NJM12902V	AE
IC2901	VHiMM1332E/-1Y		MM1332E	AH
TRANSISTORS				
Q501	VS12A01SS++-1Y		12A01SS++	AC
Q502	VSKRC401E++-1Y		KRC401E++	AB
Q552	VSKRC402E++-1Y		KRC402E++	AB
Q600	VSFMG12////-1Y		FMG12	AD
Q604	VSXP4313///-1Y		XP4313	AC
Q2554	VSKTC4075EY-1Y		KTC4075EY	AB
Q2901	VSFDC642P++-1Y		FDC642P++	AE
Q2902	VSFDC642P++-1Y		FDC642P++	AE
Q2903	VSFDT458P++-1Y		FDT458P++	AE
Q2904	VSXP4213///-1Y		XP4213	AC
Q2905	VSXP1213///-1Y		XP1213	AC
Q2906	VSXN04391//-1Y		XN04391	AC
DIODES				
C526	RH-VXA003WJZZY		Varistor	AC
D551	VHD1SS400++-1Y		D1SS400++	AB
D2902	VHDKDS121E+-1Y		DKDS121E+	AB
D2904	VHDRB160M30-1Y		DRB160M30	AC
D2905	VHD1SS400++-1Y		D1SS400++	AB
D2906	RH-EX1398CEZZY		Zener Diode, EX1398CE	AB
VA501	RH-VXA003WJZZY		Varistor	AC
COILS				
FL501	RFiLZA003WJPZY		Filter, FiLZA003WJ	AD
L501	VPD9M100KR86NY		Peaking, 10µH	AC
L551	VPD9M100KR86NY		Peaking, 10µH	AC
L600	VPCEM470M3R7NY		Peaking, 47µH	AC
L601	VPBWM100KR50NY		Peaking, 10µH	AC
L2900	RCiLFA009WJZZY		Coil, CiLFA009WJ	AG
CAPACITORS				
C501	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C502	VCSATA1AJ106MY		10 10V Tantalum	AC
C503	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C506	VCCCCZ1HH101JY		100p 50V Ceramic	AB
C507	VCSATA1AJ106MY		10 10V Tantalum	AC
C509	VCCCCZ1HH101JY		100p 50V Ceramic	AB
C521	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C522	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C523	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C524	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C525	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C528	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C529	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C551	RC-KZ0075TAZZY		2.2 16V Ceramic	AC
C552	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C553	VCCCCZ1HH330JY		33p 50V Ceramic	AB
C554	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C555	VCCCCZ1HH101JY		100p 50V Ceramic	AB
C556	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C557	VCCCCZ1HH101JY		100p 50V Ceramic	AB
C558	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C559	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C561	VCKYCZ1CB103KY		0.01 16V Ceramic	AB
C562	VCSATA0JJ106MY		10 6.3V Tantalum	AD
C573	VCCCCZ1HH221JY		220p 50V Ceramic	AB
C574	VCCCCZ1HH221JY		220p 50V Ceramic	AB
C575	VCCCCZ1HH221JY		220p 50V Ceramic	AB
C605	VCKYCZ1CB103KY		0.01 16V Ceramic	AB

Ref. No.	Part No.	★		Description	Code
C611	VCSATA0JJ106MY	10	6.3V	Tantalum	AD
C612	VCSATA0JJ336MY	33	6.3V	Tantalum	AD
C614	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C616	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C618	VCKYCY1CB333KY	0.033	16V	Ceramic	AA
C620	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C622	VCKYCZ1AB273KY	0.027	10V	Ceramic	AB
C624	VCKYCY1AB474KY	0.47	10V	Ceramic	AC
C627	VCSATA0JJ336MY	33	6.3V	Tantalum	AD
C629	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C630	RC-KZ0083TAZZY	2.2	10V	Ceramic	AC
C631	RC-KZ0083TAZZY	2.2	10V	Ceramic	AC
C632	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C634	RC-KZA069WJZZY	4.7	10V	Ceramic	AB
C635	VCKYCY1AB224KY	0.22	10V	Ceramic	AB
C636	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C637	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C638	VCKYCY1AB224KY	0.22	10V	Ceramic	AB
C641	VCSATA0JJ336MY	33	6.3V	Tantalum	AD
C642	VCSATE1AJ476MY	47	10V	Tantalum	AD
C645	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C648	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C651	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C2514	RC-KZ0075TAZZY	2.2	16V	Ceramic	AC
C2516	VCKYCY1AB224KY	0.22	10V	Ceramic	AB
C2517	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C2518	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C2519	VCKYCZ1AB104KY	0.1	10V	Ceramic	AB
C2520	VCCCCZ1HH151JY	150p	50V	Ceramic	AB
C2521	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C2551	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C2901	VCKYCY1CB104KY	0.1	16V	Ceramic	AB
C2902	VCKYTV1CF105ZY	1	16V	Ceramic	AB
C2903	VCKYCY1CB104KY	0.1	16V	Ceramic	AB
C2906	VCKYCY1CB104KY	0.1	16V	Ceramic	AB
C2910	VCKYCY0JB105KY	1	6.3V	Ceramic	AC

RESISTORS

C527	VRS-CZ1JF000JY	0	1/16W	5% Metal Oxide	AA
C1501	VRS-CZ1JF103JY	10	1/16W	5% Metal Oxide	AA
C1502	VRS-CZ1JF103JY	10	1/16W	5% Metal Oxide	AA
C1505	VRS-CZ1JF103JY	10	1/16W	5% Metal Oxide	AA
C1506	VRS-CZ1JF103JY	10	1/16W	5% Metal Oxide	AA
C1507	VRS-CZ1JF103JY	10	1/16W	5% Metal Oxide	AA
R501	VRS-CZ1JF223JY	22k	1/16W	Metal Oxide	AA
R502	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R504	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R505	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R506	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R507	VRS-CZ1JF153JY	15k	1/16W	Metal Oxide	AA
R508	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R509	VRS-CZ1JF273JY	27k	1/16W	Metal Oxide	AA
R510	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R512	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R513	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R514	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R525	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R527	VRS-CZ1JF473DY	47k	1/16W	Metal Oxide	AA
R528	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R529	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R530	VRS-CZ1JF682JY	6.8k	1/16W	Metal Oxide	AA
R531	VRS-CZ1JF272JY	2.7k	1/16W	Metal Oxide	AA
R551	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R552	VRS-CZ1JF123JY	12k	1/16W	Metal Oxide	AA
R553	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R554	VRS-CZ1JF5R6JY	5.6	1/16W	Metal Oxide	AA
R555	VRS-CZ1JF5R6JY	5.6	1/16W	Metal Oxide	AA
R557	VRS-CZ1JF5R6JY	5.6	1/16W	Metal Oxide	AA
R559	VRS-CZ1JF5R6JY	5.6	1/16W	Metal Oxide	AA
R572	VRS-CZ1JF223JY	22k	1/16W	Metal Oxide	AA
R573	VRS-CZ1JF223JY	22k	1/16W	Metal Oxide	AA
R578	VRS-CZ1JF181JY	180	1/16W	Metal Oxide	AA
R581	VRS-CZ1JF562JY	5.6k	1/16W	Metal Oxide	AA
R582	VRS-CZ1JF181JY	180	1/16W	Metal Oxide	AA
R600	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R601	VRS-CZ1JF682JY	6.8k	1/16W	Metal Oxide	AA
R602	VRS-CZ1JF472JY	4.7k	1/16W	Metal Oxide	AA
R605	VRS-CZ1JF473JY	47k	1/16W	Metal Oxide	AA
R606	VRS-CZ1JF222JY	2.2k	1/16W	Metal Oxide	AA
R620	VRS-CZ1JF123JY	12k	1/16W	Metal Oxide	AA
R621	VRS-CZ1JF123JY	12k	1/16W	Metal Oxide	AA
R625	VRS-CZ1JF333JY	33k	1/16W	Metal Oxide	AA
R627	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R629	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R630	VRS-CZ1JF153JY	15k	1/16W	Metal Oxide	AA
R632	VRS-CZ1JF683JY	68k	1/16W	Metal Oxide	AA
R637	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R638	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R639	VRS-CZ1JF683JY	68k	1/16W	Metal Oxide	AA
R643	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R645	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R651	VRS-CZ1JF562JY	5.6k	1/16W	Metal Oxide	AA
R652	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R655	VRS-CZ1JF472JY	4.7k	1/16W	Metal Oxide	AA
R656	VRS-CZ1JF472JY	4.7k	1/16W	Metal Oxide	AA
R657	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R658	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R659	VRS-CZ1JF681JY	680	1/16W	Metal Oxide	AA
R1471	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1472	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1475	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R1476	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1477	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R2508	VRS-CZ1JF622DY	6.2k	1/16W	Metal Oxide	AA
R2509	VRS-CZ1JF104DY	100k	1/16W	Metal Oxide	AA
R2510	VRS-CZ1JF822DY	8.2k	1/16W	Metal Oxide	AA
R2511	VRS-CZ1JF223JY	22k	1/16W	Metal Oxide	AA
R2512	VRS-CZ1JF105JY	1M	1/16W	Metal Oxide	AA
R2513	VRS-CZ1JF153DY	15k	1/16W	Metal Oxide	AA
R2514	VRS-CZ1JF153JY	15k	1/16W	Metal Oxide	AA
R2515	VRS-CZ1JF153JY	15k	1/16W	Metal Oxide	AA
R2516	VRS-CZ1JF154JY	150k	1/16W	Metal Oxide	AA
R2520	VRS-CZ1JF122JY	1.2k	1/16W	Metal Oxide	AA
R2523	VRS-CZ1JF471JY	470	1/16W	Metal Oxide	AA
R2525	VRS-CZ1JF474JY	470k	1/16W	Metal Oxide	AA
R2526	VRS-CZ1JF222JY	2.2k	1/16W	Metal Oxide	AA
R2527	VRS-CZ1JF472JY	4.7k	1/16W	Metal Oxide	AA
R2528	VRS-CZ1JF682JY	6.8k	1/16W	Metal Oxide	AA
R2530	VRS-CZ1JF474JY	470k	1/16W	Metal Oxide	AA
R2531	VRS-CZ1JF682JY	6.8k	1/16W	Metal Oxide	AA
R2533	VRS-CZ1JF100JY	10	1/16W	Metal Oxide	AA
R2558	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R2559	VRS-CZ1JF180JY	18	1/16W	Metal Oxide	AA
R2560	VRS-CZ1JF682JY	6.8k	1/16W	Metal Oxide	AA
R2561	VRS-CZ1JF472JY	4.7k	1/16W	Metal Oxide	AA
R2901	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R2903	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R2905	VRS-CZ1JF105JY	1M	1/16W	Metal Oxide	AA
R2906	VRS-CZ1JF105JY	1M	1/16W	Metal Oxide	AA
R2907	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R2908	VRS-TV2BDR15JY	0.15	1/8W	Metal Oxide	AA
R2909	VRS-TV1JD1R5JY	1.5	1/16W	Metal Oxide	AA
R2910	VRS-CZ1JF224DY	220k	1/16W	Metal Oxide	AA
R2911	VRS-CZ1JF101JY	100	1/16W	Metal Oxide	AA
R2913	VRS-TW2HF181JY	180	1/2W	Metal Oxide	AA
R2914	VRS-CZ1JF224DY	220k	1/16W	Metal Oxide	AA
R2915	VRS-CZ1JF823DY	82k	1/16W	Metal Oxide	AA
R2916	VRS-CZ1JF823DY	82k	1/16W	Metal Oxide	AA
R2917	VRS-CZ1JF474JY	470k	1/16W	Metal Oxide	AA
R2918	VRS-CZ1JF474JY	470k	1/16W	Metal Oxide	AA
R2920	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R3635	VRS-CZ1JF184JY	180k	1/16W	Metal Oxide	AA
R3638	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R3643	VRS-CZ1JF154JY	150k	1/16W	Metal Oxide	AA
R7426	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R7427	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R7428	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA
R7429	VRS-CY1JF000JY	0	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
			BALUNES	
R1478	RBLN-0083GEZZY		Balun, BLN-0083GE	AB
R1479	RBLN-0083GEZZY		Balun, BLN-0083GE	AB
R1480	RBLN-0083GEZZY		Balun, BLN-0083GE	AB
			MISCELLANEOUS PARTS	
J1401	QJAKE0080TAZZY		Jack, 8Pin	AG
J2900	QJAKC0006TAZZ		Jack, 3Pin	AE
J7401	QJAKZA007WJZZ		Jack, 4Pin	AE
P900	QTANBA002WJZZ		Terminal, 3Pin	AF
P2901	QCNCM8058TAZZY		Connector, 80Pin	AG
P3602	QPLGN0474TAZZY		Plug, 4Pin	AD
SC501	QCNCWA036WJZZY		Connector, 15Pin	AD
SC551	QCNCWA039WJZZY		Connector, 5Pin	AE

DUNTKB726QA00 LCD PWB UNIT

Ref. No.	Part No.	★	Description	Code
			INTEGRATED CIRCUITS	
IC800	VHiBR24L02M-1Y		BR24L02M	AE
IC801	VHiiR3Y54U+-1Q		IR3Y54U	AS
IC802	VHiNC7NZ04K-1Y		NC7NZ04K	AD
IC803	VHiNC7SZ04P-1Y		NC7SZ04P	AD
IC804	VHiNC7WZ08K-1Y		NC7WZ08K	AD
IC9800	VHiTA75S01F-1Y		TA75S01F, I DFT	AD
			TRANSISTORS	
Q800	VSXP4601///-1Y		XP4601	AC
Q801	VSXP4601///-1Y		XP4601	AC
Q802	VS3LN01S///-1Y		3LN01S	AC
Q9800	VSCPH5504++-1Y		CPH5504++	AE
Q9801	VSXP4601///-1Y		XP4601	AC
Q9802	VSKTC4075EY-1Y		KTC4075EY	AB
			DIODES	
D800	RH-EXA089WJZZY		Zener Diode, EXA089WJ	AB
D9800	RH-EXA089WJZZY		Zener Diode, EXA089WJ	AB
			COILS AND TRANSFORMER	
L800	VPD9M100KR86NY		Peaking, 10µH	AC
L9800	RCiLPA051WJZZY		Coil, 33µH	AD
⚠ T9800	RTRNZA023WJZZY		Transformer	AH

Ref. No.	Part No.	★	Description			Code
			CAPACITORS			
C800	VCSATA0YJ336MY		33	7V	Tantalum	AD
C801	VCKYCZ1HF103ZY		0.01	50V	Ceramic	AB
C802	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C803	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C804	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C807	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C808	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C809	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C810	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C811	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C812	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C813	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C814	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C815	RC-KZ0075TAZZY		2.2	16V	Ceramic	AC
C816	VCKYTV1CB105KY		1	16V	Ceramic	AC
C817	VCKYCY0JB105KY		1	6.3V	Ceramic	AC
C818	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C820	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C821	RC-KZ0083TAZZY		2.2	10V	Ceramic	AC
C9800	RC-KZA041WJZZY				Ceramic	AC
C9801	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C9802	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C9803	RC-CZ0061TAZZY		2200p	25V	Ceramic	AD
C9804	VCKYCY1HB332KY		3300p	50V	Ceramic	AA
C9805	RC-KZA052WJZZY		18p	3kV	Ceramic	AD
C9807	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB

Ref. No.	Part No.	★	Description			Code
			RESISTORS			
R800	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R801	VRS-CZ1JF333DY		33k	1/16W	Metal Oxide	AA
R802	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R803	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R804	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R805	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R806	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R807	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R808	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R809	VRS-CZ1JF103JY		10k	1/16W	Metal Oxide	AA
R810	VRS-CZ1JF1R0JY		1	1/16W	Metal Oxide	AA
R811	VRS-CZ1JF1R0JY		1	1/16W	Metal Oxide	AA
R812	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R813	VRS-CZ1JF103JY		10k	1/16W	Metal Oxide	AA
R814	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R815	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R816	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R817	VRS-CZ1JF100JY		10	1/16W	Metal Oxide	AA
R818	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R819	VRS-CZ1JF103JY		10k	1/16W	Metal Oxide	AA
R821	VRS-CY1JF000JY		0	1/16W	Metal Oxide	AA
R824	VRS-CZ1JF000JY		0	1/16W	Metal Oxide	AA
R825	VRS-CZ1JF563JY		56k	1/16W	Metal Oxide	AA
R826	VRS-CZ1JF104JY		100k	1/16W	Metal Oxide	AA
R827	VRS-CZ1JF823JY		82k	1/16W	Metal Oxide	AA
R9800	VRS-CZ1JF152JY		1.5k	1/16W	Metal Oxide	AA
R9801	VRS-CZ1JF152JY		1.5k	1/16W	Metal Oxide	AA
R9802	VRS-CZ1JF182DY		1.8k	1/16W	Metal Oxide	AA
R9803	VRS-CZ1JF103DY		10k	1/16W	Metal Oxide	AA
R9804	VRS-CZ1JF473JY		47k	1/16W	Metal Oxide	AA
R9805	VRS-CZ1JF271DY		270	1/16W	Metal Oxide	AA
R9806	VRS-CZ1JF271DY		270	1/16W	Metal Oxide	AA
R9807	VRS-CZ1JF101JY		100	1/16W	Metal Oxide	AA
R9808	VRS-CZ1JF103JY		10k	1/16W	Metal Oxide	AA
R9809	VRS-CZ1JF473JY		47k	1/16W	Metal Oxide	AA
R9810	VRS-CY1JFR22JY		0.22	1/16W	Metal Oxide	AA
R9811	VRS-CZ1JF102DY		1k	1/16W	Metal Oxide	AA
R9812	VRS-CZ1JF153DY		15k	1/16W	Metal Oxide	AA
			MISCELLANEOUS PARTS			
SC800	QSOCN1892TAZZY		Socket, 18Pin			AD
SC801	QSOCN1892TAZZY		Socket, 18Pin			AD
SC802	QSOCN2492TAZZY		Socket, 24Pin			AE
SC803	QCNCW0694TAZZY		Connector, 6Pin			AD
SC9800	QSOCN1019TAN1Y		Socket, 10Pin			AG

DUNTKB733QA00 HEAD AMP PWB UNIT

Ref. No.	Part No.	★	Description	Code
			INTEGRATED CIRCUITS	
IC301	VHiLA70050W-1Y		LA70050W, Rec PB Amp IC	AQ
IC351	VHiMB88146A-1Y		MB88146A, I/O Expander	AH
IC1701	VHiLB11990F-1Y		LB11990F	AQ
			TRANSISTORS	
Q301	VS2SC4738Y/-1Y		2SC4738Y	AA
Q302	VS2SC4738Y/-1Y		2SC4738Y	AA
Q350	VSFDG312P++-1Y		FDG312P++	AD
Q351	VSXP1111+++-1Y		XP1111+++	AB
Q352	VSXP0431N++-1Y		XP0431N++	AB
Q353	VSKRC404E++-1Y		KRC404E++	AB
Q1701	VSXP6501///-1Y		XP6501///	AC
			COILS	
L301	VPAWM4R7MR70NY		Peaking, 4.7µH	AB
L1701	VPD9M100KR86NY		Peaking, 10µH	AC
L1702	VPD9M4R7MR53NY		Peaking, 4.7µH	AB

Ref. No.	Part No.	★	Description			Code
			CAPACITORS			
C301	VCCCCZ1HH5R0CY		5p	50V	Ceramic	AA
C302	VCCCCZ1HH5R0CY		5p	50V	Ceramic	AA

Ref. No.	Part No.	★	Description			Code
C303	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C306	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C308	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C309	VCSATE1AJ336MY		33	10V	Tantalum	AD
C311	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C312	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C313	RC-KZA069WJZZY		4.7	10V	Ceramic	AB
C314	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C315	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C316	VCKYCZ1HB471KY		470p	50V	Ceramic	AB
C317	VCKYCZ1HB471KY		470p	50V	Ceramic	AB
C318	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C319	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C320	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C322	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C323	VCKYCZ1CB822KY		8200p	16V	Ceramic	AB
C324	VCKYCZ1CB103KY		0.01	16V	Ceramic	AB
C350	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C351	VCKYTV1AB105KY		1	10V	Ceramic	AC
C352	VCCCCZ1HH101JY		100p	50V	Ceramic	AB
C353	VCCCCZ1HH101JY		100p	50V	Ceramic	AB
C354	VCKYTV1AB105KY		1	10V	Ceramic	AC
C1701	VCKYCZ1CB223KY		0.022	16V	Ceramic	AC
C1702	VCKYCZ1CB223KY		0.022	16V	Ceramic	AC
C1703	VCKYTV1AB105KY		1	10V	Ceramic	AC
C1704	VCKYCY1AF105ZY		1	10V	Ceramic	AC
C1705	VCKYCZ1AB104KY		0.1	10V	Ceramic	AB
C1706	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1707	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1708	RC-KZ0083TAZZY		2.2	10V	Ceramic	AC
C1709	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1710	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1711	VCKYTV1AB105KY		1	10V	Ceramic	AC
C1712	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1713	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C1714	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1715	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C1716	VCKYCZ1HB102KY		1000p	50V	Ceramic	AB
C1717	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1718	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1719	VCKYCY0JF105ZY		1	6.3V	Ceramic	AB
C1720	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1721	VCKYCY0JF105ZY		1	6.3V	Ceramic	AB
C1722	VCKYCY1CB473KY		0.047	16V	Ceramic	AA
C1723	VCKYCZ1EB472KY		4700p	25V	Ceramic	AB
C1724	VCKYCY1AF105ZY		1	10V	Ceramic	AC
C1725	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1726	VCKYCZ1AF104ZY		0.1	10V	Ceramic	AB
C1727	VCCCCZ1HH101JY		100p	50V	Ceramic	AB
C1728	VCKYCY1AF105ZY		1	10V	Ceramic	AC

RESISTORS

R301	VRS-CZ1JF222JY	2.2k	1/16W	Metal Oxide	AA
R302	VRS-CZ1JF183JY	18k	1/16W	Metal Oxide	AA
R303	VRS-CZ1JF822JY	8.2k	1/16W	Metal Oxide	AA
R304	VRS-CZ1JF222JY	2.2k	1/16W	Metal Oxide	AA
R305	VRS-CZ1JF272JY	2.7k	1/16W	Metal Oxide	AA
R306	VRS-CZ1JF153JY	15k	1/16W	Metal Oxide	AA
R308	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R309	VRS-CZ1JF183JY	18k	1/16W	Metal Oxide	AA
R311	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R312	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R314	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R316	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R317	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R318	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R319	VRS-CZ1JF563JY	56k	1/16W	Metal Oxide	AA
R350	VRS-CZ1JF105JY	1M	1/16W	Metal Oxide	AA
R351	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R352	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R353	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R354	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R355	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R356	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R357	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R358	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R359	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R360	VRS-CZ1JF221JY	220	1/16W	Metal Oxide	AA
R361	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R362	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R363	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R364	VRS-CZ1JF221JY	220	1/16W	Metal Oxide	AA
R365	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R366	VRS-CZ1JF104JY	100k	1/16W	Metal Oxide	AA
R367	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1700	VRS-CZ1JF151JY	150	1/16W	Metal Oxide	AA
R1701	VRS-CZ1JF151JY	150	1/16W	Metal Oxide	AA
R1702	VRS-CZ1JF182JY	1.8k	1/16W	Metal Oxide	AA
R1703	VRS-CZ1JF182JY	1.8k	1/16W	Metal Oxide	AA
R1704	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R1705	VRS-CZ1JF393JY	39k	1/16W	Metal Oxide	AA
R1706	VRS-CZ1JF223JY	22k	1/16W	Metal Oxide	AA
R1707	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R1708	VRS-CZ1JF1R0JY	1	1/16W	Metal Oxide	AA
R1709	VRS-CZ1JF1R0JY	1	1/16W	Metal Oxide	AA
R1710	VRS-CZ1JF1R0JY	1	1/16W	Metal Oxide	AA
R1711	VRS-CZ1JF1R0JY	1	1/16W	Metal Oxide	AA
R1712	VRS-CZ1JF105JY	1M	1/16W	Metal Oxide	AA
R1713	VRS-CZ1JF331JY	330	1/16W	Metal Oxide	AA
R1714	VRS-CZ1JF621JY	620	1/16W	Metal Oxide	AA
R1715	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R1716	VRS-CZ1JF223JY	22k	1/16W	Metal Oxide	AA
R1717	VRS-CZ1JF330JY	33	1/16W	Metal Oxide	AA
R1718	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R1719	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R1720	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1721	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1722	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R1723	VRS-CZ1JF182JY	1.8k	1/16W	Metal Oxide	AA
R1724	VRS-CZ1JF182JY	1.8k	1/16W	Metal Oxide	AA
R1725	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1726	VRS-CZ1JF330JY	33	1/16W	Metal Oxide	AA
R1727	VRS-CZ1JF103JY	10k	1/16W	Metal Oxide	AA
R1728	VRS-CZ1JF102JY	1k	1/16W	Metal Oxide	AA
R1729	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA
R1731	VRS-CZ1JF000JY	0	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

P301	QPLGN0576TAZZY	Plug, 5Pin	AC
SC301	QSOCN1092TAZZY	Socket, 10Pin	AD
SC303	QSOCN1092TAZZY	Socket, 10Pin	AD
SC304	QSOCN0706TAN1Y	Socket, 7Pin	AE
SC305	QCNCWA037WJZZY	Connector, 21Pin	AD
SC306	QCNCWA081WJZZY	Connector, 27Pin	AG
SC307	QCNCWA041WJZZY	Connector, 33Pin	AE
SC308	QCNCWA041WJZZY	Connector, 33Pin	AE
SC310	QSOCN1292TAZZY	Socket, 12Pin	AD
SC311	QSOCN1005TAN1Y	Socket, 10Pin	AE
TP301	QLUGZA001WJZZY	Lug	AB
TP302	QLUGZA001WJZZY	Lug	AB

DUNTKB731PM01
LITHIUM PWB UNIT

INTEGRATED CIRCUITS

IC5800	VHiNC7NZ04K-1Y	NC7NZ04K	AD
IC5801	VHiNC7SZ04P-1Y	NC7SZ04P	AD

DIODE

D5801	RH-EXA090WJZZY	Zener Diode, EXA090WJ	AB

CAPACITORS

C5800	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C5801	VCKYCY0JB105KY	1	6.3V	Ceramic	AC
C5802	VCKYCZ1AF104ZY	0.1	10V	Ceramic	AB
C5803	VCKYCY0JB105KY	1	6.3V	Ceramic	AC

Ref. No.	Part No.	★	Description	Code
			RESISTORS	
R5800	VRS-CZ1JF000JY		0 1/16W Metal Oxide	AA
R5801	VRS-CZ1JF333JY		33k 1/16W Metal Oxide	AA
R5802	VRS-CZ1JF123JY		12k 1/16W Metal Oxide	AA
			MISCELLANEOUS PARTS	
RDA5800	QTANZA012WJZZY		Terminal, 2Pin	AE
SC5800	QCNCWA039WJZZY		Connector, 25Pin	AE
SC5801	QCNCW2294TAZZY		Connector, 22Pin	AE
SW5800	QSW-MA001WJZZY		Switch, LCD Close SW	AD

DUNTKB730PM04 OPERATION PWB UNIT

			CAPACITORS	
C2001	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2002	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2003	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2004	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2005	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2006	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2007	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2008	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2009	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2010	VCKYCY1HB332KY		3300p 50V Ceramic	AA
C2011	VCKYCY1HB332KY		3300p 50V Ceramic	AA
			MISCELLANEOUS PARTS	
SC2002	QSOCN0907REN1Y		Socket, 9Pin	AD
SW2001	QSW-K0100TAZZY		Switch	AC
SW2002	QSW-KA015WJZZ		Switch	AL
SW2007	QSW-K0100TAZZY		Switch	AC

DUNTKB734PM01 VCR OPERATION PWB UNIT

			LED'S	
LED2101	RH-PXA038WJZZY		PhotoDIODE	AC
LED2102	RH-PXA037WJZZY		PhotoDIODE	AB
			CAPACITORS	
C2101	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2102	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
			RESISTORS	
R2101	VRS-CZ1JF102JY		1k 1/16W Metal Oxide	AA
R2102	VRS-CZ1JF102JY		1k 1/16W Metal Oxide	AA
			MISCELLANEOUS PARTS	
SC2101	QSOCN1292TAZZY		Socket, 12Pin	AD
SW2102	QSW-S0210TAZZY		Switch	AD
SW2103	QSW-MA005WJZZY		Switch, EJECT	AD
SW2104	QSW-K0100TAZZY		Switch, STANBY	AC
SW2105	QSW-K0100TAZZY		Switch, REC	AC

DUNTKB735PM00 ZOOM SW PWB UNIT

			CONTROL	
VR2201	RVR-VA001WJZZY		Variable Resistor	AG
			CAPACITORS	
C2201	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
C2202	VCKYCZ1HB102KY		1000p 50V Ceramic	AB
			MISCELLANEOUS PARTS	
	PSLDMA195WJZZ		Shield	AD
P2201	QPLGN0276TAZZY		Plug, 2Pin	AD
SC2201	QSOCN1006TAN1Y		Socket, 10Pin	AE
SW2201	QSW-K0097TAZZY		Switch	AD

DUNTKB732PM00 MECHA REVERSION DETECTION PWB UNIT

			MISCELLANEOUS PART	
SW2300	QSW-M0018TAZZY		Switch	AC

MECHANISM PARTS

Ref. No.	Part No.	★	Description	Code
300	CCHSMA013WJ01		Mecha Chassis Service	BQ
301	LCHSMA013WJZZ		Main Chassis Ass'y	AQ
302	QSW-RA002WJZZ		Mode SW	AF
303	QPWBHB546WJZZ		LM/Mode FPC	AG
304	NGERHA001WJFW		Main Cam	AD
305	MLEVFA007WJFW		Ejection Lever	AD
306	NGERHA002WJFW		Sub Cam	AD
307	MLEVFA002WJFW		SL Drive Lever	AD
308	MLEVFA004WJFW		S brake Operating Lever	AC
309	MLEVFA003WJFW		T arm Operating Lever	AE
310	PGiDMA003WJZZ		SLA Support	AC
311	RMOTMA002WJZZ		L Motor Ass'y	AN
312	RDTCH0039GEZZ		Dew Sensor	AD
313	PGiDMA002WJZZ		TLA Support	AC
314	NGERHA007WJZZ		Center Gear	AE
315	RMOTVA001WJZZ		Capstan Motor Ass'y	AY
316	NPLYVA001WJZZ		Relay Pulley	AD
317	CGiDMA005WJ01		Drum Base Ass'y	AN
318	CARMMA003WJ01		Tu Pole Base Loading Arm Ass'y	AP
319	NGERHA005WJZZ		Tu Loading Gear	AC
320	MSPRDA009WJFJ		Tu Press SPR	AC
321	CARMMA001WJ01		S Pole Base Loading Arm Ass'y	AQ
322	NGERHA004WJZZ		S Loading Gear	AC
323	MSPRDA008WJFJ		S Press SPR	AC
324	NGERHA006WJZZ		Loading Drive Gear	AD
325	PGiDMA001WJZZ		Guide Rail	AC
326	MLEVFA005WJZZ		Pinch Press Lever Ass'y	AG
327	MSPRTA002WJFJ		Pinch Press SPR	AC
328	MSPRDA007WJFJ		Pinch Lever Return SPR	AC
329	MLEVFA015WJZZ		Pinch Lever Ass'y	AQ
341	CCHSSA001WJ01		Sensor FPC Affixing Slide Chassis Ass'y	BC
342	LANGGA012WJFW		Slide Adjustment ANG	AC
343	LANGJA001WJFW		T-SPR Adjustment ANG	AC
344	MSPRDA010WJFJ		Tu guide Arm SPR	AC
345	MLEVFA012WJZZ		Tu guide Arm Ass'y	AG
346	MSPRCA022WJFJ		Guide Adjustment SPR	AC
347	PGiDSA003WJFW		Tu Guide Flange	AC
348	PGiDPA001WJFW		Tu Guide	AD
349	LX-NZ0102GEFW		Guide Nut	AC
350	MLEVFA011WJFW		VSR Brake Lever	AE
351	NGERHA008WJZZ		T Brake Gear	AE
352	MLEVPA003WJZZ		T Main Brake	AC
353	NDAiVA001WJZZ		S Reel Table Ass'y	AL
354	NDAiVA002WJZZ		Tu Reel Table Ass'y	AL
355	MLEVPA002WJZZ		S Main Brake	AE
356	MSPRTA004WJFJ		S Brake SPR	AC
357	CLEVFA009WJ01		Tension Arm Ass'y	AK
358	LBNDKA001WJZZ		Tension Band Ass'y	AE
359	MSPRTA003WJFJ		T Arm SPR	AC
371	MARMMA005WJZZ		Swing Arm Ass'y	AG
372	LANGFA011WJZZ		Reel Cover Ass'y	AG
373	LANGGA013WJFW		Down Guide	AF
374	PCOVPA009WJZZ		Cassette Lid	AC
375	TLABHA012WJZZ		Cassette Control Caution Label	AC
376	TLABHA015WJZZ		Cassette Control Lock Label	AC
377	DDRMVA001WJ01		Drum Ass'y	BN
400	LX-BZ3131GEFN		Special Screw M1.4 x L1.6	AA
401	LX-HZ3089GEFF		S Tight M1.4 x 2	AA
402	LX-HZ3076GEFF		S Tight M1.4 x 3	AA
403	LX-BZA016WJFF		Special Screw M1.4 x L2.0	AC
404	LX-BZA015WJFF		Special Screw M1.4 x L1.5	AC
405	LX-BZ3135GEFF		Precision Type2 M1.4 x L1	AA
406	LX-BZA017WJFF		L Motor Installation Screw	AC
407	LX-BZ3159GEFF		Precision Type2 M1.7 x L2.5	AA
408	LX-WZ1029GE00		CW ø 1.2 ø 3t0.25	AA
409	LX-WZ1052GE00		CW ø 0.7 ø 1.8t0.2	AA
410	XWHJZ21-02040		W ø 2.1 ø 4.0t0.25	AA

CASSETTE CONTROL PARTS

Ref. No.	Part No.	★	Description	Code
200	CHLDXA002WJ01		Cassette Control Ass'y	AQ
201	LHLDXA002WJZZ		Housing Ass'y	AN
202	MSPRTA005WJFJ		UP-SPR-R	AC
203	MSPRTA008WJFJ		UP-SPR-L	AC

CABINET PARTS LIST

Ref. No.	Part No.	★	Description	Code
1	GCOVHA035WJKA		Adjustment Connector Cover B	AG
2	CCABAA246WJK4		KS Camera R Cabinet	AN
2-2	LANGKA120WJFW		PWB mounting Angle	AG
3	CCABBA196WJK1		KS Camera L Cabinet (Z1U)	AV
3	CCABBA196WJK2		KS Camera L Cabinet (Z1C)	AU
3-2	GCOVAA319WJSA		Pop-up Cover	AC
3-3	HDECBA001WJSA		SHARP Nameplate	AE
3-4	JBTN-A153WJSA		Display Button	AC
3-5	JKNBPA019WJSA		Battery Lock Knob	AC
3-6	LANGKA156WJFW		Pop-up Cover Fitting	AD
3-7	LHLDZA147WJSA		Battery Lock Holder	AD
3-8	MSPRCA019WJFJ		Battery Lock Spring	AA
3-9	MSPRCA025WJFJ		Pop-up Cover Spring	AA
3-10	PSHEPA095WJZZ		Battery Blind Sheet	AC
3-11	PSPAZA185WJZZ		LCD Spacer	AB
3-12	TLABHA020WJZZ		Lithium Label	AC
3-15	PSPAHA138WJZZ		Top Face Sliding Spacer	AB
3-16	PSPAZA259WJZZ		Top Face Sliding Spacer B	AB
4	CCABCA012WJK1		KS Terminal Cabinet	AR
4-2	GCOVAA315WJSA		Terminal Cover	AL
4-3	GCOVAA317WJSA		DC Terminal Cover	AD
4-4	PSLDMA195WJZZ		Electrostatic Sheet	AD
5	CCOVAA395WJK1		KS Camera Front Cover	AV
5-2	GCOVAA322WJKA		Lens Cover	AF
5-3	GCOVAA390WJSA		Remote Control Cover	AE
5-4	HDECAA012WJSC		Microphone Grill	AH
5-5	HiNDPA432WJSA		Lens Cover Nameplate	AD
5-6	LHLDZA148WJZZ		Microphone Holder	AD
5-7	PCOVPA016WJZZ		Microphone Sheet	AC
5-8	QEARPA062WJFJ		Microphone Earth	AC
5-9	RMiCCA008WJZZ		Microphone Unit	AK
5-10	ZTAPEZ800020E		Microphone Lead Sheet	AA
6	CCOVAA379WJK1		KS Camera Top Face	AN
6-3	LANGKA151WJFW		Top Face Cover Fitting	AF
7	CCOVAA373WJK1		KS Camera Bottom Cover	AN
7-2	LANGKA159WJZZ		Bottom Cover Fitting B	AH
8-1	DHLDZA154WJ01		Slide Support Holder Ass'y	AZ
8-1-1	GCOVAA328WJSA		VF Eye Cap	AH
8-1-2	GCOVAA330WJSA		VF Dust Removing Window Cover	AC
8-1-3	JKNBPA011WJSA		VF Diopter Scale Control	AC
8-1-4	LANGGA017WJ00		VF Slide Cover	AM
8-1-5	LANGKA128WJZZ		VF Diopter Scale Fixing Bracket Ass'y	AM
8-1-6	LHLDZA151WJZZ		VF Eye Cap Fixing Holder	AD
8-1-7	LHLDZA152WJKA		VF Diopter Scale Holder	AD
8-1-9	LHLDZA181WJSA		VF Diopter Scale Control Holder	AC
8-1-10	MSPRPA021WJFJ		Diopter Scale Control Rotary Spring	AC
8-1-11	PLNSVA001WJNA		VF Lens Unit	AG
8-2	LANGKA133WJFW		VF Fixing Bracket	AF
8-3	LHLDZA155WJZZ		VF LCD Holder	AC
8-4	LHLDZA156WJZZ		VF LCD Support Holder	AC
8-5	PSHEPA093WJZZ		VF Side Blind Sheet	AB
8-6	PSPAGA069WJZZ		VF LCD Spacer	AD
8-7	QEARPA068WJFW		VF Relay PWB Earth Plate	AD
8-8	QEARPA070WJFW		VF Side Operation PWB Earth Plate	AD
8-9	RLCUCA003WJZZ		Backlight Unit	BH
9-1-2	LANGKA125WJFW		Lens Fixing Bracket A	AF
10-1	CANGKA117WJ01		KS LCD Shield Case (Rear)	AL
10-1-2	PSHEPA072WJZZ		Lightproof Sheet	AF
10-1-3	PTPEHA017WJZZ		LCD Fixing Tape	AC
10-2	CCABDA013WJK8		KS LCD Cabinet	AM
10-2-2	TLABZA248WJZZ		Feature Label	AD
10-2-3	PSHEPA099WJZZ		LCD Cabinet Attachment (KS Attachment)	AB
10-3	CCOVAA314WJK1		LCD Tilt Unit Ass'y	BA
10-3-3	LANGKA119WJZZ		LCD Tilt Unit	AX
10-3-4	QPWBHB736WJZZ		LCD Tilt FPC	AR
10-3-5	TMAGTA001WJZZ		Magnet	AD
10-4	CLMPVA002WJ01		Lamp Unit	AR
10-6	DUNTKB726QA00		LCD PWB Unit	—
10-7	GCOVAA313WJKA		LCD Front Cover	AL
10-8	LANGKA118WJFW		LCD Shield Case (Front)	AF
10-9	PGiDM0036TAZZ		Optical Waveguide	AG
10-10	PMiR-A022WJZZ		Reflection Sheet	AC
10-11	PSHEPA076WJZZ		DBEF Sheet	AG
10-12	PSHEPA087WJZZ		Prism Sheet	AF
10-13	PSHEPA092WJZZ		Diffusion Sheet	AD
10-14	PSLDMA167WJZZ		Shield Sheet	AC
10-15	RLCDVA002WJZZ		LCD Panel	BN
10-16	PSHEPA098WJZZ		Lightproof Sheet A	AE
10-17	PSHEPA105WJZZ		Creak-preventive Sheet	AB
10-18	PSPAZA272WJZZ		LCD PWB Spacer A	AB
10-19	PSPAZA273WJZZ		LCD PWB Spacer B	AB
11	DUNTKB722QA13		Main PWB Unit	—
11-2	LHLDZA092WJZZ		R/C Element Holder	AC
11-3	RRMCUA012WJZZ		R/C	AF
12	DUNTKB729QA13		Sub PWB Unit	—
13	DUNTKB730PM04		Operation PWB Unit	—
14	DUNTKB731PM01		Lithium PWB Unit	—
16-1	GCOVAA382WJSA		Lens Hood	AE
16-2	GCOVAA358WJSA		Lens Cover	AG
18	LANGKA130WJFW		LCD Tilt Reinforcing Fitting	AF
19	LANGKA131WJFW		Radiating Angle	AE
20	LHLDZA172WJSA		Operation PWB Fixing Holder	AD
21	MLEVPA005WJSA		LCD Lock Lever	AC
22	MSPRCA026WJFJ		LCD Lock Spring	AA
24	QEARPA061WJFW		Operation Unit Earth Plate	AC
26	QPWBHB742WJZZ		Lithium PWB FPC	AE
28	GFTABA004WJSA		Lithium Lid	AE
29	TLABMA458WJZZ		Model Label(Z1U)	AC
29	TLABMA459WJZZ		Model Label(Z1C)	AD
30	HiNDPA390WJSA		Lens Nameplate	AD
31	QPWBHB744WJZZ		Hole Sensor PWB	AB
32	VHiEW6671++-1Y		Hole Sensor	AE
33	QPWBHB772WJZZ		Operation FPC	AE
a	XiPSN17P02000		Screw M1.7 x 2	AA
b	XiPSN17P03000		Screw M1.7 x 3	AA
c	XiPSN17P04000		Screw M1.7 x 4	AA
e	XiPSF17P03000		Screw M1.7 x 3	AA
n	LX-HZ0050TAFF		Screw M1.7-4 TAP	AA
o	LX-HZA009WJFD		Screw	AA
p	LX-HZ0063TAFN		Screw M1.7-6 TAP GIN	AA
q	XiPSN17P06000		Screw M1.7 x 6	AA
r	XiPSN20P08000		Screw M2.0 x 8	AA
s	XiPSF14P06000		Screw M1.4 x 6	AA
x	LX-HZ0050TAFN		Screw M1.7 x 4 TAP	AA

CABINET MECHANISM PARTS LIST

Ref. No.	Part No.	★	Description	Code
101	CANGKA141WJ01		KS Camera Tilt	BA
101-2	LANGKA143WJFW		Tilt Ring Fitting	AH
101-3	LANGKA144WJFW		Tilt FPC Fitting	AF
101-4	LANGKA145WJFW		Tilt Holding Ring	AF
101-5	LHLDZA165WJZZ		Tilt FPC Fixing Holder	AD
101-6	PSHEPA079WJZZ		Tilt FPC Sheet A	AB
101-7	PSHEPA080WJZZ		Tilt FPC Sheet B	AB
101-8	PSPAZA170WJZZ		Norglide Ring	AG
101-9	PSPAZA172WJZZ		Tilt Ring Epacer	AE
101-10	QCNW-B171WJZZ		Tilt Ring Wire	AF
101-11	QEARPA063WJFN		Tilt Earth Ring	AE
101-12	QPWBHB737WJZZ		Tilt FPC	AN
103	CCOVAA353WJK5		KS Preparation Cover	AS
103-2	JBTN-A130WJSA		Snap Button	AG
103-3	JKNBPA016WJSA		Zoom Knob	AD
103-4	LHLDZA160WJZZ		Zoom Knob Holder	AC

Ref. No.	Part No.	★	Description	Code
103-5	LHLDZA163WJZZ		Zoom Base Holder	AC
103-6	MSPRCA020WJFJ		Zoom Knob Spring	AA
103-7	PSPAZA217WJZZ		Zoom Spacer	AB
104	CCOVAA338WJK1		KS Tilt Cover	AK
105	CCOVAA384WJK1		KS VCR Operation Cover	AS
105-2	GCOVAA344WJZZ		LED Cover	AC
105-3	GCOVAA345WJSA		Power Knob Cover	AE
105-4	JBTN-A132WJSA		Power Lock Button	AC
105-5	JBTN-A133WJSA		S/S Button	AH
105-6	JBTN-A134WJSC		Standby Button	AD
105-7	JKNBPA015WJSC		Power Knob	AD
105-8	MSPRCA023WJFJ		Lock Button Spring	AA
106	GCOVAA340WJKA		KS VCR Front Cover	AK
108	DUNTKB732PM00		Mechanism Reversion Detection PWB Unit	—
109	DUNTKB733QA00		Head Amp PWB Unit	—
110	DUNTKB734PM01		VCR Operation PWB Unit	—
111	DUNTKB735PM00		Zoom SW PWB Unit	—
112	GCOVAA337WJSA		Lock Support Cover	AD
113	GCOVAA341WJKC		VCR Bottom Cover	AK
114	GCOVAA386WJKC		Strap Cover	AG
115	GFTACA021WJKC		Cassette Lid	AK
116	JKNBPA017WJSA		Lid Opening Knob	AC
117	JKNBPA014WJSC		Media Selector Knob	AE
118	LANGKA138WJ01		Chassis Frame	AY
119	LHLDZA162WJZZ		Lid Lock	AD
120	LHLDZA164WJZZ		Selector Knob Holder	AC
121	LHLDZA178WJZZ		Lid lock Holder	AD
122	MSPRTA007WJFJ		VCR Lid Lock Spring	AB
123	PSHEPA085WJZZ		Cassette Lid Backside Sheet	AB
125	QCNW-B167WJZZ		Operation PWB FFC	AC
126	QEARPA065WJFW		Zoom SW PWB Earth Plate	AC
127	QEARPA066WJFW		Power Knob Earth Plate	AC
128	QPWBHB746WJZZ		Zoom PWB FPC	AE
129	VSP0020P-B2WN		Speaker	AK
132	LHLDE1004TASA		Fixture	AC
133	GCOVAA420WJSA		Strap Front Angle Cover	AD
134	GCOVAA421WJSA		Strap Rear Angle Cover	AD
a	XiPSN17P02000		Screw M1.7 x 2	AA
b	XiPSN17P03000		Screw M1.7 x 3	AA
d	XiPSF17P02000		Screw M1.7 x 2	AA
e	XiPSF17P03000		Screw M1.7 x 3	AA
f	XiPSF17P04000		Screw M1.7 x 4	AA
g	LX-BZA024WJFD		Tilt Screw	AA
h	LX-BZ0220TAFC		Screw M1.7 x 2	AB
k	LX-BZA023WJFD		Floating Screw B	AA
u	LX-BZ0221TAFC		Screw M1.7 x 3	AB
w	LX-BZA022WJFN		Floating Screw A	AA
x	LX-HZ0050TAFN		Screw M1.7 x 4 TAP	AA
y	LX-HZ0081TAFN		Screw M1.7 x 5	AA

LENS UNIT PARTS LIST

2	DUNTKB724QA03	CCD PWB Unit	—
3	CLNS-A005RMAA	CCD Service	
4	PCOVMA004WJ00	Dustproof Rubber	AD
5	PFiLW0085TAZZ	Crystal LFO	AS
6	PLNSAA005WJN1	Lens	BT
7	PSHEGA018WJZZ	Radiating Sheet A	AD
8	PSHEGA019WJZZ	Radiating Sheet B	AD
9	PSHEGA017WJZZ	Radiating Sheet C	AF
10	PSLDMA141WJFW	CCD Shield Case	AC
11	QPWBHB738WJZZ	CCD—Main FPC	AD
13	XiPSN17P02000	Screw M1.7 x 2	AA
14	LX-HZ0073TAFD	Screw M1.7 x 5	AA

SUPPLIED ACCESSORIES

ACCESSORIES

	QCNW-B173WJZZ	A/VS Cable	AR
⚠	UADP-0339TAZZ	AC Adapter	AY
	UBATiA007WJZZ	Battery Pack(BT-L226U)	BE
	UBATLA001WJZZ	Lithium Battery(CR1216)	AE
	TiNSEA057WJZZ	Operation Manual(Z1U)	AL
	TiNSLA071WJZZ	Operation Manual(Z1C)	AS
	GCOVHA002WJZZ	Lens Cap	AH
	TCAUHA078WJZZ	Dew Caution Sheet	AH

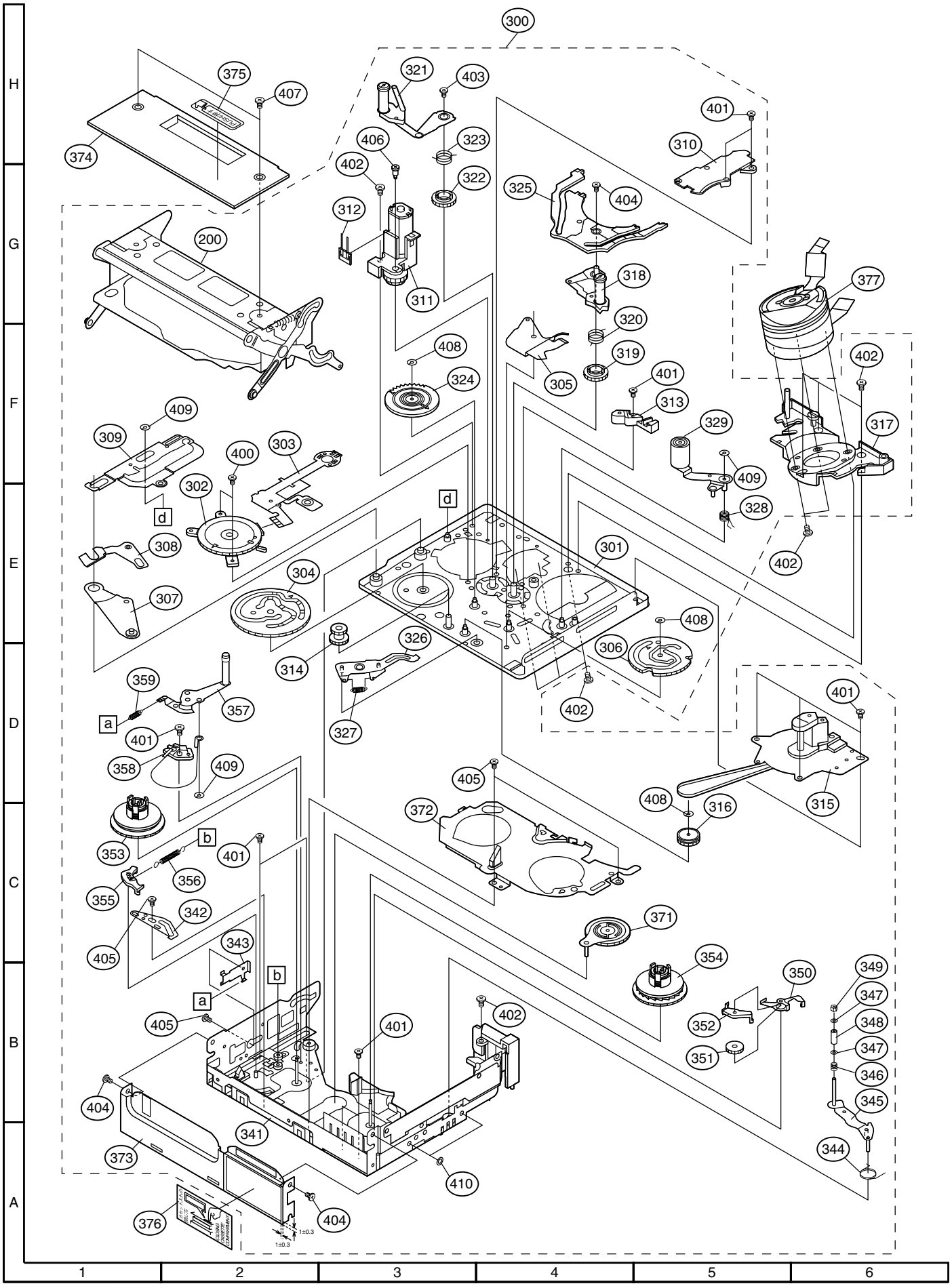
ACCESSORIES
(NOT REPLACEMENT ITEM)

TGANE0044TAZZ	Guarantee Card(Z1U)	—
TLABK0001TAZZ	No. Card(x2)	—

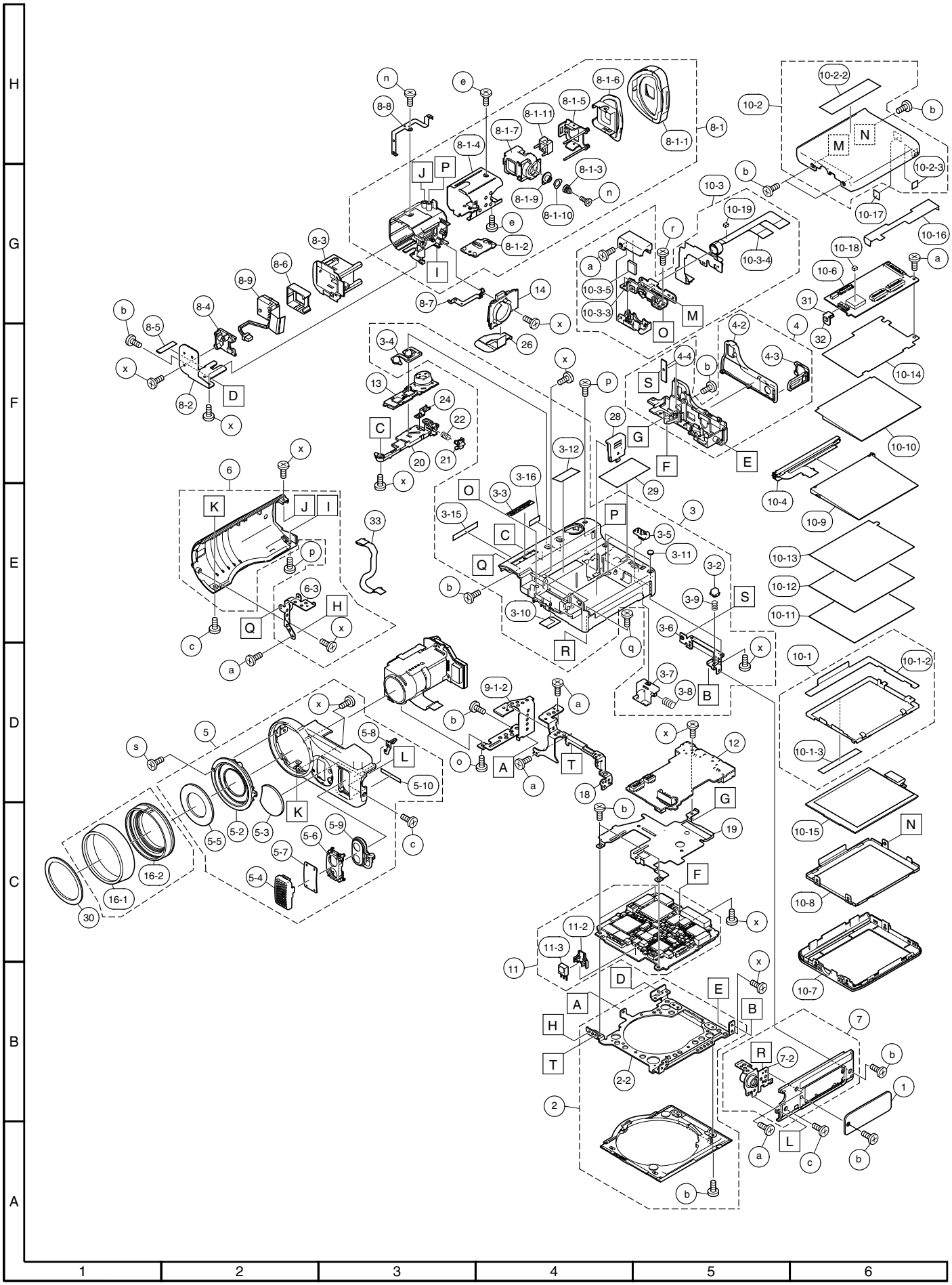
PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKCA517WJZZ	Packing Case	—
SPAKCA638WJZZ	Packing Case	—
SPAKAA089WJZZ	Packing Add. (Bottom)	—
SPAKFA194WJZZ	Operation Manual Pad	—
SPAKP6108TAZZ	Side Pad	—
SPAKP6121TAZZ	Wrapping Paper	—
SSAKA0100TAZZ	Polyethylene Bag	—

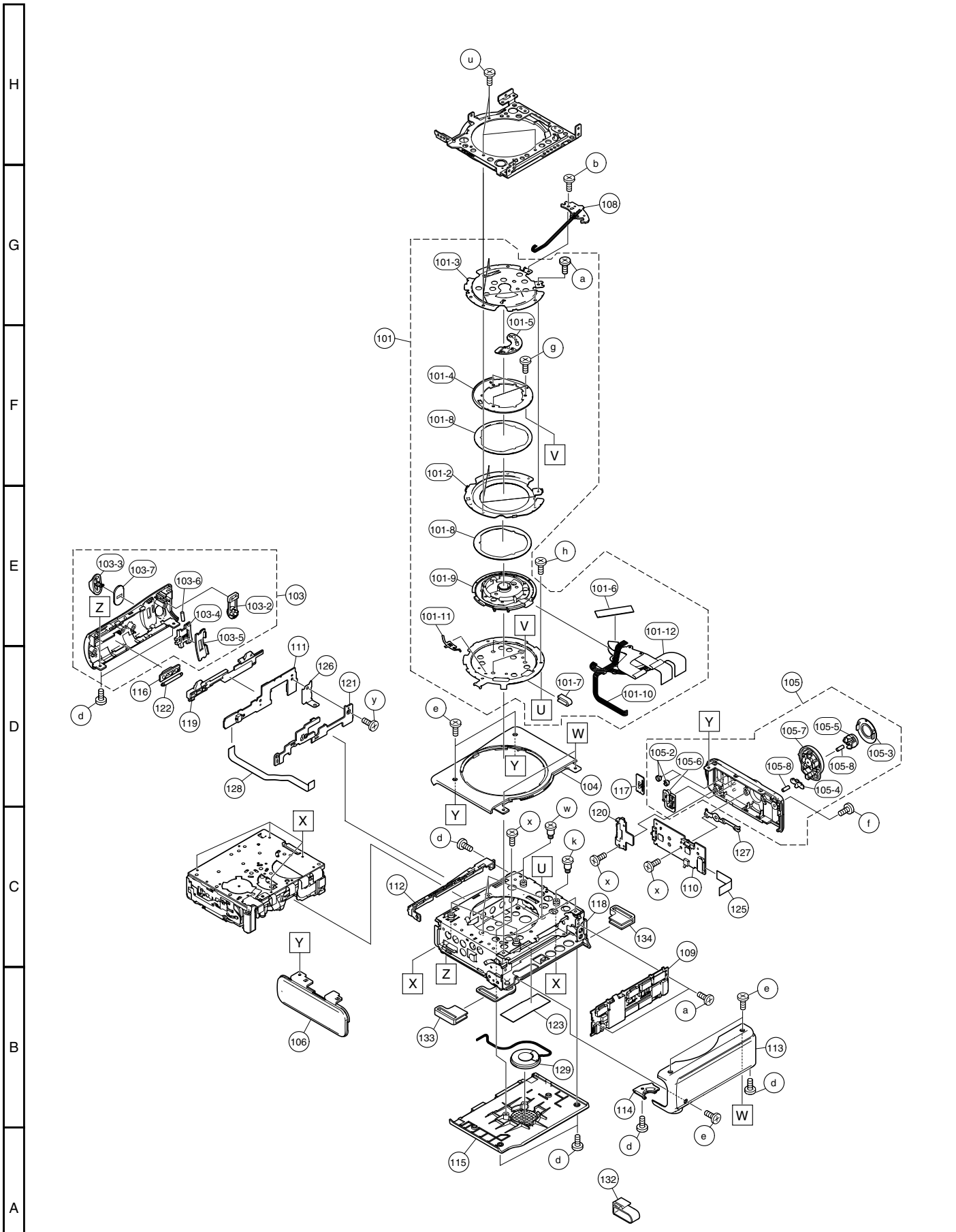
MECHANISM CHASSIS EXPLODED VIEW



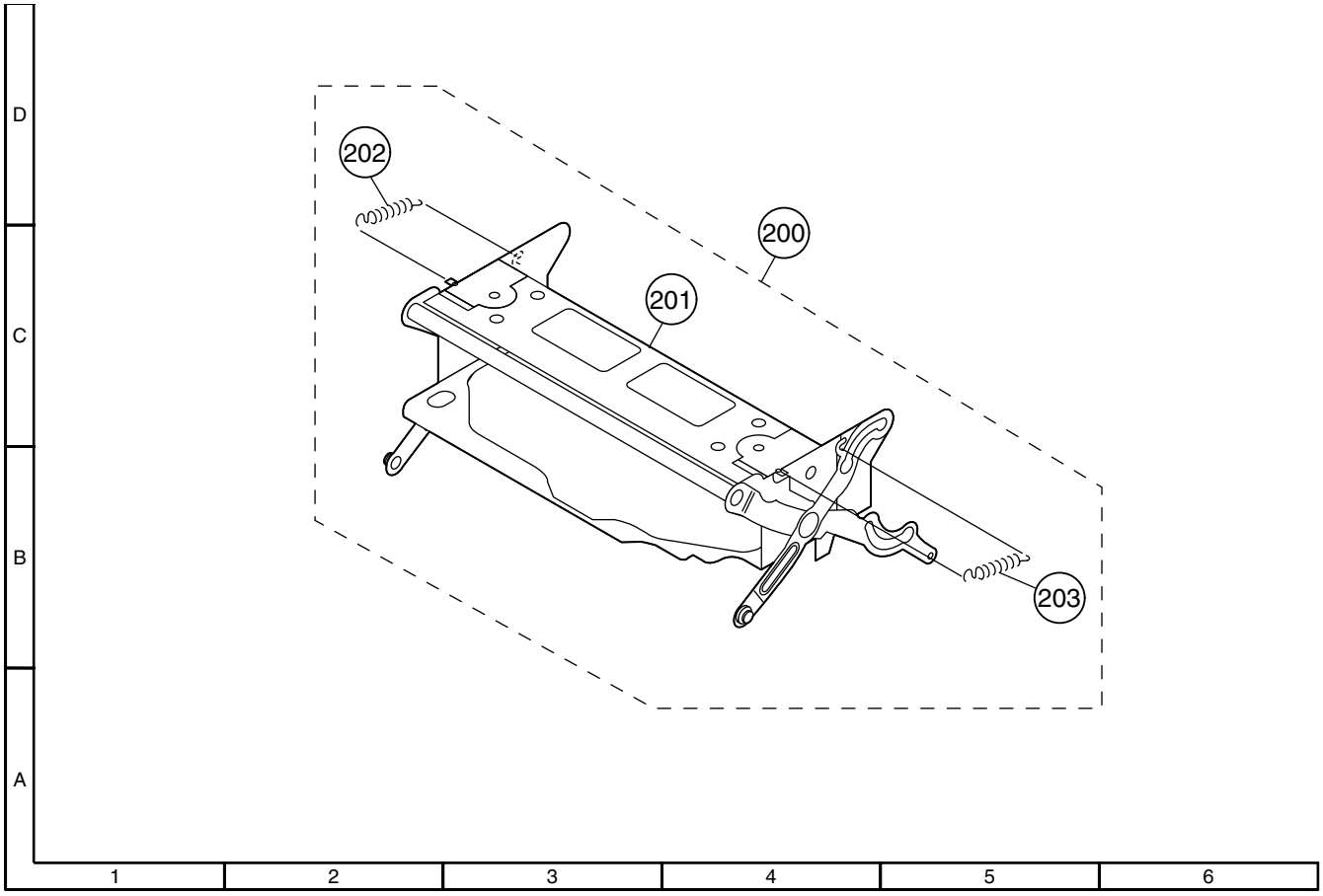
CABINET EXPLODED VIEW



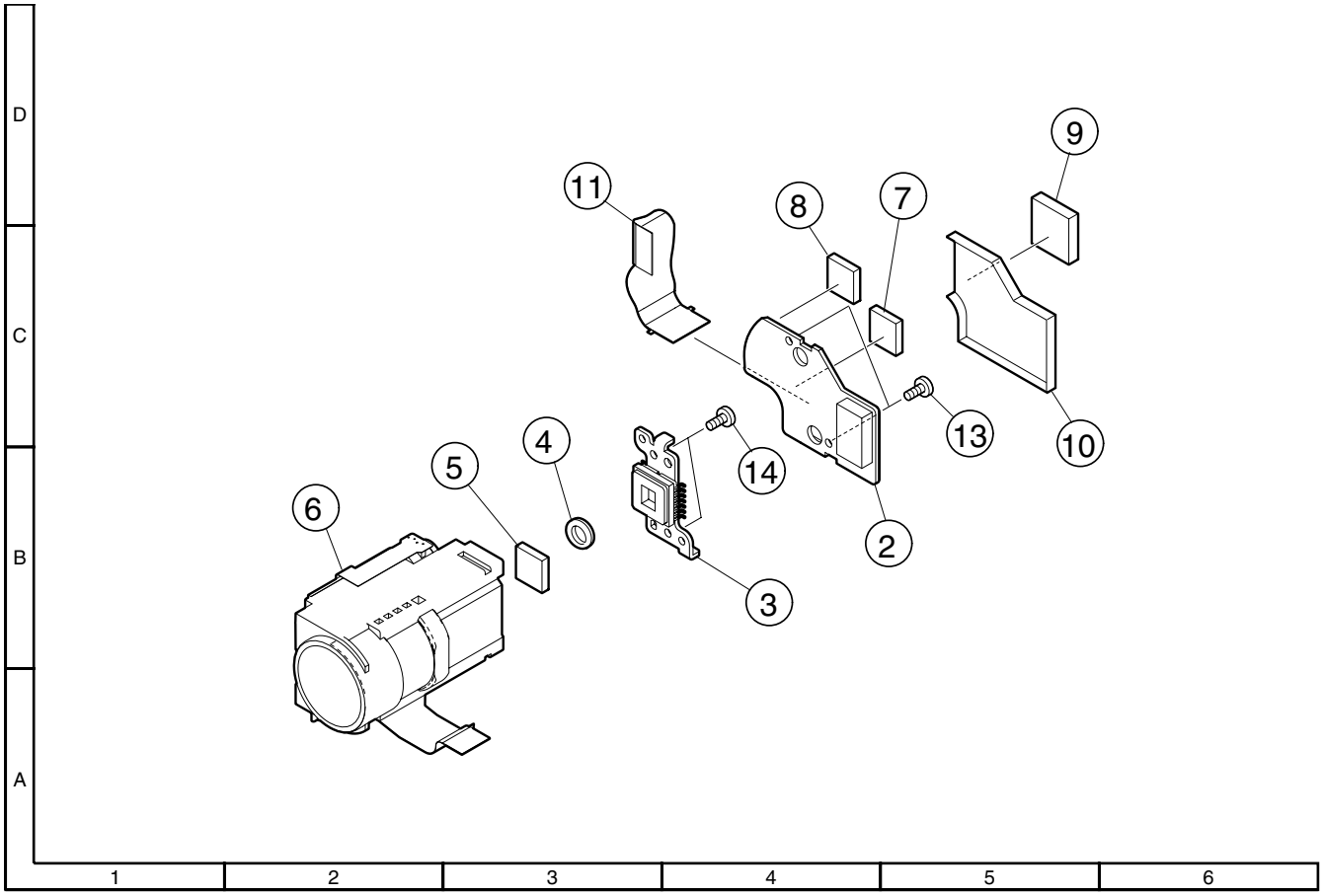
CABINET MECHANISM EXPLODED VIEW



CASSETTE CONTROL EXPLOOD VIEW



LENS UNIT EXPLOOD VIEW



VL-Z1U SERVICE JIG SPECIFICATIONS

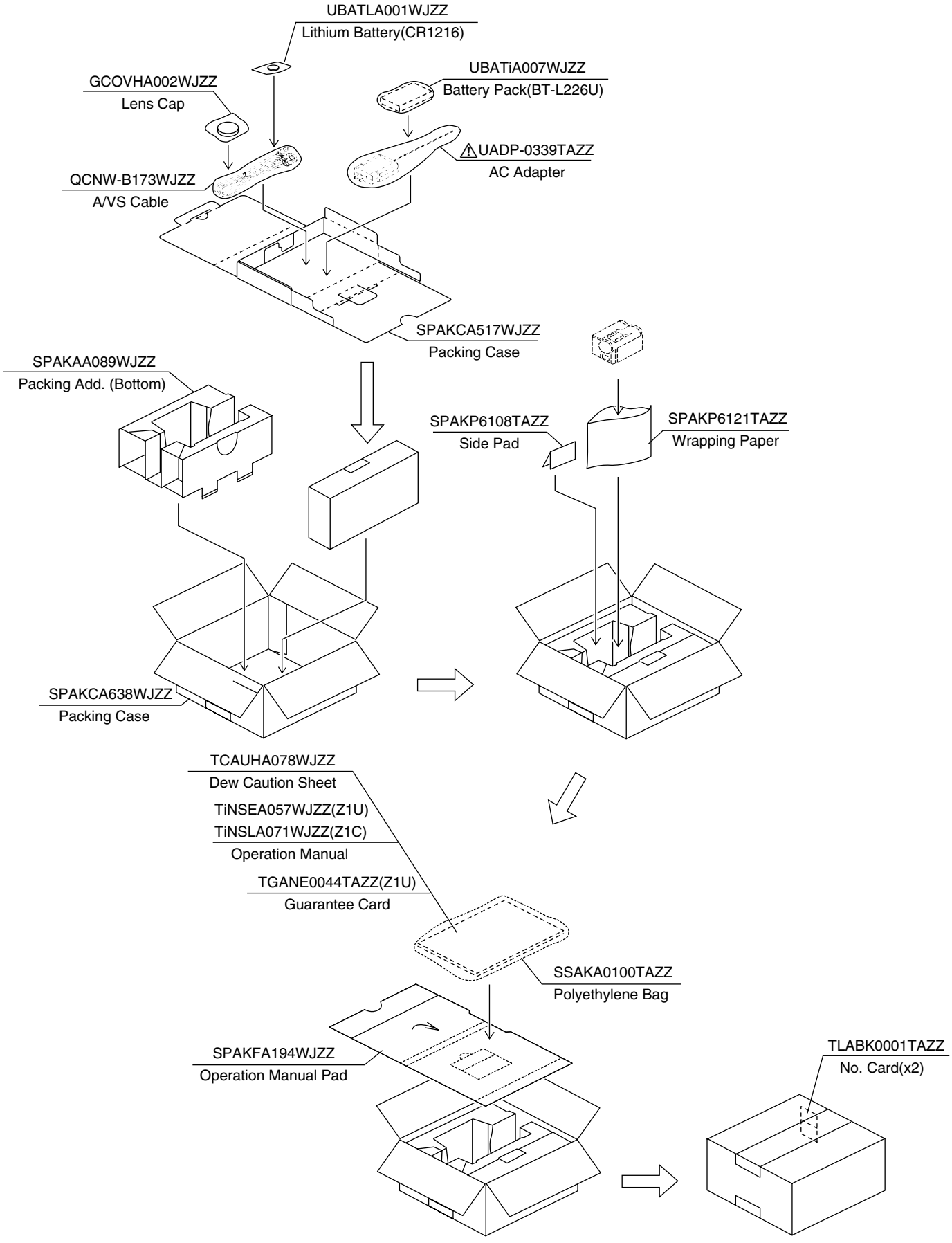
1-1. Adjusting jigs for checking the mechanism

No.	Name	New part	Type number, Application	Part code	Code
1	Cassette torque meter for PB		1mN·m/1.5mN·m	9DASD-1015	DB
2	Torque gauge		For measurement of VS-REW winding torque.	JiGTG0045	CN
3	Torque gauge head		For torque gauge shown left.	9EQTGH-DH5000	BW
4	Tension gauge 4N		For measurement of pinch roller press force.	JiGSG0400	BK
5	Dial tension gauge		PTG-10	9DAPTG-10-10W	CA
6	Torque driver 150mN·m		No. 0 cross bit, No. 00 cross bit	JiGTD1500RTDH	CB
7	Master plane		For checking of height of reel table0.	9EQMP-VLPD1	CL
8	Height adjustment jig		For height adjustment.	9DAHG-PD1	BZ
9	Driver for height adjustment		For adjustment of guide roller. Bit shape.	9EQDRiVER-DH5	BC
10	Alignment tape - (I)		Adjustment of running system(Linear signal)	VR3-GAZXS	CF
11	Alignment tape - (II)		For adjustment of SW point(Color bar signal)	VR3-GTZQS	CG
12	Bit for hexagon nut with opposite side distance of 3 mm		For installation of Tu guide nut.	95CM22001	BL
13	Reel hub for back tension measurement		Refer to Service Manual.	Prepared in the service station.	–
14	String for measuring the pinch roller pressure		Refer to Service Manual.	Prepared in the service station.	–

1-2. Parts for periodical inspection and maintenance

No.	Name	New part	Type number, Application	Part code	Code
1	Oil		Cosmo Hydro HV22	9EQ-OiL-HV22	AE
2	Cleaning paper		Dusper ∑ (SIGMA) ozu Co., LTD	JiGDUSPER	AP
3	Grease: Moly Coat YM-103		Dow corning	99FGREASE-YM103	AH
4	Dry greace CFD-409Z		Sankei Chemical	————————	–
5	Loctite adhesive (1401B)		Three Bond	————————	–

18. PACKING OF THE SET



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TQ1543-S
Jun. 2003 Printed in Japan
In Japan gedruckt

Design and Production Information	
Design	: Japan
Production	: Japan

SA. DS

SHARP CORPORATION
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Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan